



TANGANYIKA

Annual Report
of the
Medical Department
for the year ended 31st December
1950



1951
PRINTED BY THE GOVERNMENT PRINTER
DAR ES SALAAM
Price Shs. 3/-



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TANGANYIKA

Annual Report of the Medical Department for the year 1950

PART I

I.—GENERAL REVIEW

1. Tanganyika, with a population of a little over seven millions, is served by sixty-one Government hospitals and 428 public dispensaries, the majority of the latter being owned and maintained by Local Native Authorities. In addition, the various Missionary Societies maintain twenty-three hospitals staffed by qualified doctors, as well as a large number of rural dispensaries and maternity centres; while the larger agricultural and mining concerns are required by law to maintain suitable hospitals and medical facilities for the benefit of their employees. The total number of Government hospital beds available for general use amounts to slightly less than one per 2,000 of the territorial population (3,379 beds); in addition, 1,156 beds are reserved for special purposes such as maternity, infectious diseases and mental affections.

2. Total approved estimates of the Medical Department for recurrent expenditure in 1950 amounted to £684,090, which represented 7·68 per cent of the approved territorial estimates for all services for that year. Of the medical expenditure, £43,173 was allocated as grants-in-aid in favour of medical missionary services for hospital maintenance and the training of medical and nursing personnel for subsequent employment in Mission hospitals. In addition, the Department contributed materially towards the upkeep and treatment of patients at Mission leprosaria. The above-mentioned expenditure does not of course include the cost of maintaining rural dispensaries which are the responsibility of Local Native Authorities.

3. Owing to the serious shortage of professional personnel, only twenty-six Government hospitals were staffed by medical officers at the end of 1950, and fewer still by nursing sisters. The shortage of health inspectors was equally serious. Towards the end of the year there was a marked improvement in the recruitment of senior service staff but a considerable number of vacancies still remained unfilled.

4. An efficient medical service is dependent not only on overseas staff but on locally-trained Africans; and the current output of Africans from medical

training establishments is as yet inadequate to maintain staff requirements at a satisfactory level, still less the anticipated expansion of medical services during the next few years. A special committee was accordingly appointed towards the close of the year to advise on the future training of African nurses and midwives on a scale commensurate with the needs of the Department. A working party was also set up with similar terms of reference in respect of other categories of medical and public health staff of the Junior Service.

5. An important development in the decentralization of responsibility was the division of the Territory for medical administrative purposes into four Regions, each being under the control of a Regional Assistant Director of Medical Services. Subject to conformity with departmental policy, the Regional Assistant Director has been given a wide responsibility for the detailed organization of medical services within his area, including the supervision of grants-in-aid to non-Government medical institutions.

6. A firm of architects from the United Kingdom was commissioned to prepare plans for a new hospital in Dar es Salaam to replace the existing Sewa Haji Hospital. A scheme was submitted towards the end of the year but the estimated cost, well in excess of £600,000, was considered to be too high. The estimate could not be materially reduced without fundamental alterations in design and it has therefore been necessary to abandon the original proposals. New plans are being prepared locally to provide for a 400-bedded hospital adapted to local needs and conditions at a cost nearer the original estimate of £600,000.

7. The foundation stone for a new 100-bedded hospital at Korogwe was laid by Lady Twining in September. Work was also commenced on the construction of new and up-to-date accommodation at Kibongoto Tuberculosis Hospital and Sanatorium. Other capital projects included extensions to the Nurses' Training Centre, Mweka, and to Chazi Leprosarium and major improvements to the Infectious Diseases Hospital at Dar es Salaam. All the foregoing works, with the exception of the last, were financed from Development funds, of which £25,600 was spent during the year out of an authorized allocation of £45,000.

8. Smallpox is endemic in this Territory but during the year under review there was a notable increase in the incidence of the disease. A total of 6,390 cases and 1,345 deaths were notified, compared with 1,045 cases and 163 deaths during 1949. The outbreak was confined exclusively to the Southern Province, where ninety-seven per cent of all reported cases occurred. Control measures were taken but their effectiveness was seriously hampered by the shortage of medical and sanitary staff.

9. A leprosy survey was carried out by the Inter-territorial Leprologist Dr. J. Ross Innes, during June and July, in the Southern Province. A total of 52,214 persons were examined, the leprosy incidence rate being 26.5 per 1,000. It was estimated that the total number of cases of leprosy within the Province exceeded 23,000, of whom twenty-two per cent were infectious.

The increasing use of sulphone therapy is evidenced by the fact that the number of sulphone tablets issued to Government and Missionary institutions in 1950 was more than five times greater than the amount issued during the previous year.

10. Tuberculosis control is centered at Kibongoto on Mt. Kilimanjaro, where there is a hospital sanatorium and a chain of dispensaries around the mountain, serving a population of approximately a quarter of a million. The success of this scheme is dependent on the after-care service provided by the dispensary organization, which includes home visits after the patient is discharged from the sanatorium. The daily average number of in-patients during 1950 was 233; permanent ward accommodation was available for only a fraction of that number, the remainder being housed in temporary huts. The total number of patients admitted for investigation and treatment during the year was 605, of whom ninety-three died in hospital. Of 432 patients discharged, it is reported that 185 were improved as a result of treatment and were recommended for continuation of treatment by out-patient attendance at local dispensaries. Only seventeen cases were discharged whose condition rendered a fatal prognosis almost certain. These results are definitely encouraging. They do not lend support to the view, widely held, that tuberculosis in the African is a hopeless disease. The confidence reposed in Kibongoto by tuberculous Africans is indicated by the steady growth of this institution and by the fact that patients come, not only from every Province in this territory, but in many cases from neighbouring East African territories.

11. In November the Malariologist, Dr. D. Bagster-Wilson, attended, on behalf of the East African group of territories, an International Malaria Conference in Kampala, sponsored by the World Health Organization. A feature of the deliberations of this Conference was the problem of hyperendemic malaria and the effects on health and physical efficiency of long continued exposure of indigenous communities under the conditions met with in many parts of tropical Africa. The economic and immunological implications of malaria eradication schemes were discussed and the Conference agreed that further research work in these matters was required.

12. As a result of intensified medical and administrative measures in the year under review, the increase in the incidence of sleeping sickness reported during 1949, mainly affecting the Western Province, was checked; notifications in 1950 declining from 1,412 to 625. The experience of the 1949 outbreak emphasizes the great importance of maintaining control measures at the highest level of efficiency; it is only by the unremitting search for and treatment of new cases at an early stage of infection and the continued supervision of controlled settlements and movement of population within areas at risk that this disease can be kept under reasonable control. The necessity for vigilance becomes specially urgent during years of food shortage when widespread movement of the population, with resulting enhanced contact with infected fly, is liable to occur.

13. With the exception of smallpox and sleeping sickness, there was no significant change in the general epidemiological situation as compared with the immediately preceding years.

14. A new focus of endemic goitre was reported in the Njombe district of the Southern Highlands Province. This disease is also reported to be fairly common in the western part of the Southern Province. Another known focus is the Kiziba area in Bukoba district.

15. Three outbreaks of pellagra among prisoners were reported during the year, affecting 132 cases. These outbreaks are unquestionably due to the existence of borderline states of vitamin B complex deficiency among communities living in the drier areas of the Territory subject to seasonal food shortages; this is evidenced by the fact that nearly all prisoners developing the disease subsequent to admission are drawn from such areas. Investigations are at present in progress with a view to providing a diet for prisoners which will ensure a satisfactory intake of the pellagra preventive factor at all times of the year. It is possible that the introduction of food yeast as a regular element of the prison diet may be the only means of ensuring freedom from pellagra among the inmates.

16. In the field of maternity and child welfare, steady and, in some districts highly encouraging progress was made during the year. Institutional midwifery is now undertaken at most district hospitals and the number of ante-natal and child welfare clinics is steadily increasing. At Tabora and at Dar es Salaam a successful domiciliary service employing uncertificated "practical" midwives has been established. These midwives operate in the closely settled areas around a maternity centre and fulfil a most useful purpose. Another interesting feature is a scheme in Bukoba District to provide elementary instruction on a purely practical basis to traditional (tribal) midwives operating in rural areas. Such midwives would not be employed by the Department.

17. Nearly all research work undertaken during the year was confined to the East Africa High Commission Filariasis and Medical Survey Units at Mwanza under the direction of Lt. Col. W. Laurie, D.S.O. Surveys of the incidence of filariasis were carried out within a number of selected areas in the Western and Lake Provinces and the results so far obtained indicate that the disease caused by infection with *W. bancrofti* is a serious problem in only a few limited areas. Investigations were continued on the effects of treatment by hetrazan. The value of this drug in the treatment of this disease has not yet been finally established. Promising results were obtained with a new drug, a pentavalent antimony compound known as "Protostib". This appears to act directly on the adult worm, whereas the main effect of hetrazan is on the microfilariae. Further work on these two drugs is to be continued. The East African Medical Survey Unit initiated a number of field surveys as soon as it was possible to provide professional staff for this purpose. Perhaps of chief interest from the socio-medical point of view is a biological investigation

of the population living on Ukara Island on Lake Victoria. It is hoped that there will eventually emerge from these investigations a better understanding than we possess at present of the economic significance to African communities of the prevalent diseases to which they are subject, and the extent to which communities living in close and continuous contact with certain of these diseases may adapt themselves to them.

18. Reports have been received from several districts regarding the problems which arise from the rapid growth of populations in and around many townships for whom no housing or sanitary provision can be made within the limited resources and facilities available.

19. The total number of in-patients, out-patients and deaths at Government hospitals during 1950 were 82,598, 1,006,817 and 3,401 respectively. The corresponding figures for the previous year were 74,981, 989,687 and 2,944. By far the largest group of diseases treated was that caused by infection, comprising 34.13 per cent of all cases treated and 38.16 per cent of all those dying in hospital. Malaria was the most common disease treated and despite its relatively low case fatality rate accounted for more deaths than any other single disease treated. Of respiratory affections, the second largest group of diseases treated, pneumonia, although accounting for a small proportion of respiratory morbidity, caused by far the largest number of deaths within this group.

II.—STAFF

20. There have been many changes of staff during the past year, but with recruitment the position has improved slightly. Dr. K. Edmundson, Deputy Director, retired in May and Dr. P. A. T. Sneath, O.B.E., retired from the Directorship in September. Dr. A. T. Howell, formerly Deputy Director of Medical Services, Northern Rhodesia, was appointed Director to replace Dr. Sneath and arrived in the Territory in October, and Dr. R. E. Barrett arrived as Deputy Director on transfer from Uganda in November. During the interim period Dr. D. A. Skan acted first as Deputy and then as Director.

21. Two Surgeon Specialists, one Ophthalmologist and one Psychiatrist, were appointed, the Psychiatrist later resigning. The posts of Radiologist and Radiological Technician remain vacant. Twelve nursing sisters and eight medical officers arrived during 1950, but there still remained vacancies for forty nursing sisters and twenty-eight medical officers at the end of the year. Eight assistant surgeons arrived from India and two were locally recruited on temporary terms. Two hospital superintendents were also appointed. Only one health inspector was appointed, whereas there was a wastage of four, thus leaving eleven posts unfilled out of an establishment of thirty-four. Two African assistant medical officers returned to the Territory from the United Kingdom having successfully completed a course leading to the Diploma of Public Health.

PART II—PUBLIC HEALTH

III.—COMMUNICABLE DISEASES

(a) DIRECT INFECTIONS

Note.—With the exception of smallpox, cerebro-spinal meningitis, relapsing fever and sleeping sickness, the statistical data presented in the tables in this section are obtained from the Government hospital returns only and do not include those submitted from rural dispensaries. The figures for the above mentioned diseases represent the sum of all cases reported and include returns from all sources.

SMALLPOX

TABLE I

TERRITORIAL INCIDENCE 1946—1950

					1946		1947		1948		1949		1950
Cases	...	...	...	...	12,671	...	2,960	...	1,206	...	1,045	...	6,390
Deaths	...	...	...	...	1,935	...	616	...	209	...	169	...	1,345
Morbidity per cent	...	...	...	...	15.27	...	20.7	...	17.3	...	16.17	...	21.04

22. Statistical information relative to provincial incidence during the years 1946-50 will be found in Appendix 1.

The epidemiology of smallpox between the years 1939 and 1951 presents many interesting features. In the period 1939-42 the great majority of cases reported were from the Southern Province, namely 155 with five deaths (3.2 per cent) in 1940, fifty-nine with six deaths (6.7 per cent) in 1941, and eighty-seven with three deaths (3.5 per cent) in 1942; elsewhere only six cases occurred during the same period. It has never been satisfactorily established whether the outbreaks in the Southern Province were variola major or variola minor. If they had been the former a much higher notified case rate and a higher mortality rate would have been expected considering the poor vaccinal state of the population in the outlying areas of this province. Such evidence as is available suggests that the disease was in fact variola minor. It seems probable too that the actual number of cases far exceeded the number reported because of the mildness of the disease.

23. In 1944 the epidemiological picture began to change and a widespread epidemic of variola minor spread over East Africa, affecting Kenya, Uganda and Tanganyika. The origin of the disease in this territory is obscure although it was suggested that it had been imported by migrant cattle drivers from Kenya and perhaps by native migrants from Uganda. The mortality rate remained low.

24. In the last month of 1944 a focus of variola major appeared in the Geita district of the Lake Province and several months later, during 1945, it was established that variola major was smouldering in a second focus in a remote part of the Kigoma district. It would appear that the latter focus had been recognised by the local inhabitants but they had taken no

action in reporting it. It is not known whether these two foci were in any way connected with each other. Soon after the Kigoma outbreak a rapid spread along the main communications became evident and very soon thereafter the Lake and Central Provinces were widely involved. By the end of 1945 the Western and Central regions of the Territory were extensively infected with variola major; but the situation was complicated by the presence of variola minor so that variations in provincial mortality figures were very wide. From studies of local areas where major disease was predominant the mortality rate among the unvaccinated and among those vaccinated many years previously was between thirty per cent and forty per cent compared with an expected mortality rate in variola minor of less than one per cent.

25. During 1946 the disease continued in epidemic form in the Lake, Western and Central Provinces and there was an epidemic outbreak with 269 cases and twenty-four deaths in the Uzaramo district of the Eastern Province. Elsewhere, foci of more limited extent appeared in various other areas of the Territory and were circumscribed by vigorous vaccination measures. During that year the reported mortality rate showed a marked decline. By the end of 1946 there was a large reduction in the incidence and severity of the disease except in the case of the Southern Province where it has continued to smoulder. Elsewhere the decline has been generally maintained. In the Southern Province, however, there was a steady rise in the reported cases between 1947-1950.

26. It is possible that the decline of smallpox in all areas of the territory (except Southern Province) was brought about by the various mass vaccination campaigns which were instituted. On the other hand, although many million doses of vaccine lymph have been used during recent years (approximately one and half million per year) difficulties of storage and transport made it doubtful whether much of it was effective when finally used. That such was the case was proved in a small controlled experiment in Lake Province in 1947 when it was shown that only six per cent of those vaccinated exhibited satisfactory reactions. One of the lessons of the epidemic areas was the lack of an adequate vaccine lymph service, much of the vaccine having lost its potency by the time it had reached its destination. Nevertheless the very magnitude of the vaccination campaigns combined perhaps with the immunising effects of the wave of variola minor which preceded the introduction of variola major into the territory, may well have been significant with the favourable progress of the disease subsequent to 1946.

CEREBRO-SPINAL MENINGITIS

TABLE II

TERRITORIAL INCIDENCE 1946-1950

					1946		1947		1948		1949		1950
Cases	...	...	...	...	1,789	...	1,614	...	987	...	507	...	588
Deaths	...	...	...	...	448	...	380	...	199	...	146	...	145
Mortality percent	...	...	...	...	25.04	...	23.5	...	20.2	...	28.79	...	24.7

27. The steady downward trend in the incidence of cerebro-spinal meningitis, which began in 1944, ceased in 1950, the number of cases reported in that year, namely 588, being approximately the same as for 1949. No major outbreak occurred during the year, although cases were reported from all Provinces. It is perhaps surprising that no major outbreak did occur in view of the famine or near famine conditions which prevailed in 1949-50 in many districts. During the latter part of 1950 two isolated cases of highly virulent cerebro-spinal meningitis were reported from the Kwimba and Shinyanga districts of the Lake Province, one of which showed the clinical features of fulminating "spotted fever".

LEPROSY

28. The total number of cases of leprosy resident and under treatment in institutions during the year was as follows :—

Government	...	...	...	1,540
Missions	...	...	...	2,928

29. The Inter-Territorial Leprologist has now completed his survey of the incidence of leprosy in Tanganyika. In the Southern Province, where climatic conditions and the living habits of the people are conducive to the spread of leprosy, the incidence varied between 14·3 per 1,000 of the population in the Tunduru district and thirty-five per 1,000 in the Newala district compared with an average estimated incidence of 14·3 per 1,000 for the remainder of the Territory. The Leprologist estimates that there are 23,500 cases in the Southern Province of whom 4,500 are receiving some form of treatment. Only 1,700 patients are reported to be under institutional care, the majority in leprosaria maintained by the Missions.

30. Large issues of sulphone continued to be made free to missions undertaking the treatment of leprosy patients but the financial outlay is heavy and in order to bring as large a number of patients as possible under treatment, avlo-sulphone which is much cheaper and probably as effective but slightly more toxic, will largely replace sulphone. The following table shows the comparative cost per patient :—

TABLE III

<i>Drug</i>	<i>Daily Dose in Tabs</i>		<i>Yearly Dose</i>	<i>Cost per year</i> Shs.		
Avlo-sulphone	...	3	...	1,000	...	14/16
Sulphetrone	...	12	...	4,000	...	300/-

31. The search for a leprosarium in the Eastern Province continued throughout 1950 and a number of sites were examined, each one being eventually abandoned for some valid reason such as lack of water, difficulty of communications, poor soil for agricultural purposes, and so on. The question of developing the existing Government leprosarium at Chazi to an eventual capacity of 1,000 patients to serve this region was under

consideration. In the Lake Province preliminary investigations were conducted to determine whether it was possible to recommend the expansion of the Nkolondoto leprosy settlement for the reception of up to 1,000 cases. This institution is maintained by the Africa Inland Mission. A major difficulty still awaiting solution is whether or not an adequate supply of water can be made available for this expansion. Much excellent work is being done at Nkolondoto by the Mission Authorities and the results obtained by sulphone are impressive, one of the most striking being the improvement in mental outlook shown by the lepers under treatment with this drug. Elsewhere it has been decided to develop Makete leprosarium in the Southern Highlands Province as a 1,000 patient institution; in the Northern Region, possible sites for a similar leprosarium were investigated, so far without success. A sum of £100,000 is projected for the Revised Development Plan of this Department for the development of the three leprosaria within the next five years.

32. During the year under review £11,920 was voted for the maintenance and supply (including food and pharmaceuticals) of leprosy institutions maintained by Government and by Mission Societies. Of this sum, more than half was allocated to Mission Leprosaria. Total expenditure on pharmaceuticals, chiefly sulphone drugs, was approximately £3,500.

TUBERCULOSIS

TABLE IV

Territorial Incidence of Pulmonary and Non-pulmonary Tuberculosis 1946-1950

	1946	1947	1948	1949	1950
(a) <i>Pulmonary</i> :					
In-patients	1,125	938	1,298	1,370	1,534
Out-patients	2,915	3,257	3,301	4,851	3,544
Deaths (in-patients) ...	199	226	228	268	291
Mortality (I.Ps.) per cent ...	17.7	22.9	17.6	19.56	18.97
(b) <i>Other forms</i> :					
In-patients	322	296	671	348	391
Out-patients	1,461	1,731	1,710	672	1,193
Deaths (in-patients) ...	23	19	24	12	24
Mortality (I.Ps.) per cent ...	6.9	6.4	3.6	3.4	6.1

33. The tuberculosis scheme on Mt. Kilimanjaro (Kibongoto) comprises the combined work of a hospital-sanatorium and a chain of dispensaries around the mountain serving a population of some 250,000 of the Chagga tribe. Dispensary work includes not only treatment facilities but home visits to infectious cases, contact tracing and examination and instruction in personal hygiene with special reference to the disease. The scheme is operated as a closely-knit service with a single establishment comprising the staff of the hospital, sanatorium and dispensary chain.

34. Accommodation at the hospital is available mainly for Africans but a limited number of Asians are admitted. There is no accommodation for Europeans but out-patient treatment was given to thirty-four Europeans during the year, of whom thirteen were Polish subjects.

35. In the following table (Table V) is shown the numbers admitted and in residence during 1950, together with the number of deaths :

TABLE V

			<i>Tuberculosis</i>		<i>General</i>		<i>Total</i>
In residence 31.12.49	...	...	208	...	11	...	219
Admitted during 1950	...	...	605	...	575	...	1,180
Died in hospital...	...	...	93	...	14	...	109
In residence 31.12.50	...	...	249	...	10	...	259

36. It speaks well for the confidence reposed by patients in this institution to record that of 1,290 persons who left the hospital as in-patients during the year, all with the exception of forty-four patients were discharged in the ordinary way.

37. Of 516 cases of pulmonary tuberculosis with positive sputa who were treated in hospital, sixty-six become sputum negative during the year, that is 12·8 per cent. This result compares favourably with previous years and considering that a large percentage of positive cases admitted are in such an advanced stage of disease that treatment is inevitably palliative, the above-mentioned results are considered very satisfactory.

On the question of treatment the Medical Officer in charge of the institution comments as follows :

“Streptomycin.—As streptomycin becomes available in increasing quantities we tried the drug on a number of selected cases. The selection of cases was at random and on several occasions we used the drug with the pious hope of saving the life of a very sick patient. However, the effect of streptomycin in acute exudative pulmonary lesions (most of our patients have acute exudative lesions) was discouraging and we have come to the conclusion that streptomycin, except in a very small number of cases, is almost without effect on this type of tuberculosis in the African. In two Asian cases, however, it had very good results in checking the spread of the disease and both these patients eventually became sputum negative and are leading healthy normal lives. Streptomycin had good results in the treatment of tuberculous meningitis and empyematas and we are continuing the treatment of the above complications and will report the results on a larger series of patients.

Para-amino-salicylic acid (P.A.S.).—P.A.S. had no effect at all on pulmonary tuberculous patients and we have now abandoned its use altogether. Curiously enough the general condition of patients on P.A.S. treatment appeared to improve during the course of therapy, even though the lesions progressed slowly (unfavourably). It appears to have some beneficial effect on empyematous and pleural effusions but a full report on a larger series of patients will be made.

Sulphetrone.—In our experience sulphetrone is useless in the treatment of pulmonary tuberculosis and patients treated with this drug appear to deteriorate more rapidly than normal.

No radical alteration in methods of treatment has evolved during the year. There has been a more general use of P.A.S. as an inhibitory factor in incidental pleural effusions during collapse therapy Methods of treatment, either singly or in combination, remain essentially the same and comprise artificial pneumothorax therapy with adhesion cutting where necessary; phrenicectomy or phrenic crush with or without pneumoperitoneum therapy; cervical gland excision; and plaster of paris in most bone, joint and spinal cases.”

39. The Development Plan for the Medical Department included provision for the re-building of Kibongoto hospital and sanatorium at an estimated capital cost of approximately £30,000. Work on this project was commenced in 1950 and by the end of the year a new administrative block containing offices, X-ray rooms, theatre, laboratory and therapy rooms etc., had been completed, and a new ward was in process of completion. The new hospital when finally completed will provide bed accommodation for 216 patients under ideal, hygienic conditions. The Development Plan also includes provision for a new hospital/sanatorium at a place to be decided later.

40. The total cost of the existing scheme in maintenance and upkeep (including the salaries of all staff) was £15,000 during 1950.

DYSENTERIES

TABLE VI

Territorial Incidence 1946-1950

			1946		1947		1948		1949		1950
a) <i>Amoebic</i> :											
Out-Patients	...	...	496	...	692	...	581	...	838	...	559
In-Patients	...	...	254	...	259	...	254	...	249	...	300
Deaths (I.Ps.)	...	...	11	...	21	...	18	...	21	...	19
Mortality per cent	...	...	4.3	...	7.3	...	7.1	...	8.4	...	6.3
(b) <i>Bacillary</i> :											
Out-Patients	...	...	550	...	603	...	690	...	780	...	1,217
In-Patients	...	...	281	...	151	...	246	...	232	...	315
Deaths (I.Ps.)	...	...	31	...	16	...	18	...	11	...	10
Mortality per cent	...	...	11.03	...	10.6	...	7.3	...	4.7	...	3.2
(c) <i>Undefined</i> :											
Out-Patients	...	...	2,161	...	2,395	...	3,111	...	3,753	...	8,021
In-Patients	...	...	457	...	295	...	593	...	490	...	572
Deaths (I.Ps.)	...	...	45	...	22	...	32	...	31	...	37
Mortality per cent	...	...	9.6	...	7.5	...	5.4	...	6.3	...	6.5

41. The fatal dysentery outbreaks reported from the Morogoro District in previous years among labourers and prisoners living and working along the Ngerengere River did not recur during 1950. Possibly this may have been due to the fact that the river did not sink so low in the dry season as it did previously. The incidence of dysentery in Morogoro among those drawing water from the river is stated to be much higher than those using a bore hole.

42. No unusual incidence of this group of diseases is reported elsewhere.

ENTERIC FEVERS

TABLE VII

Territorial Incidence 1946-1950

				1946		1947		1948		1949		1950
Out-Patients	...	...	...	26	...	74	...	183	...	10	...	71
In-Patients	...	...	...	302	...	291	...	282	...	326	...	386
Deaths (I.Ps.)	...	...	...	38	...	46	...	34	...	38	...	56
Mortality per cent	...	...	...	12.6	...	15.4	...	4.9	...	11.6	...	14.8

43. In the Tanga Province an outbreak of typhoid fever occurred near the U.M.C.A. Mission at Magila in March, 1950. In the course of two weeks twelve cases but no deaths were reported. Water had been scarce before the outbreak and usually came from a small stream in which bathing and washing also took place. In the Eastern Province thirty cases were recorded from Kilosa and seventeen from Lindi in the Southern Province. Both towns have an unsatisfactory water supply and show also a relatively high incidence of diarrhoea and dysentery.

44. No unusual incidence was reported elsewhere.

VENEREAL DISEASES

TABLE VIII

Territorial Incidence 1946-1950

(a) <i>Syphilis</i> :				1946		1947		1948		1949		1950
Out-Patients	...	...	...	37,486	...	38,897	...	37,539	...	36,492	...	30,792
In-Patients	...	...	...	1,868	...	2,364	...	1,943	...	1,823	...	1,726
(b) <i>Gonorrhoea</i> :												
Out-Patients	...	...	...	16,928	...	20,059	...	21,493	...	17,606	...	17,197
In-Patients	...	...	...	2,864	...	2,414	...	2,523	...	2,317	...	1,840
(c) <i>Yaws</i> :												
Out-Patients	...	...	...	50,284	...	60,052	...	61,263	...	61,147	...	51,703
In-Patients	...	...	...	975	...	714	...	685	...	676	...	671

45. In the Lake Province, consideration is being given to the problem of venereal disease among the Bahaya of Bukoba District in whom the incidence of this disease is said to be unduly high. A large proportion of the womenfolk of this tribe leave the country in search of work in and around urban areas. Many of them become prostitutes and, returning home, are responsible for the spread of venereal disease among their fellows. Public opinion among this tribe is becoming alive to the evils of a social system permitting the exodus of such a high proportion of females under conditions conducive to promiscuity and to the desirability of removing the underlying causes of an unsettled female population. Interest is also being taken by the leaders of the community in specific organized measures directed against venereal disease. Plans are being prepared by the Department for suitable medical measures combined with public education and information on the causes and prevention of these diseases. It will be necessary for the community to appreciate that venereal disease cannot be successfully controlled without full public co-operation, and without combating the undesirable social influences which are primarily responsible for their prevalence.

(b) VECTORBORNE INFECTIONS

SLEEPING SICKNESS. (HUMAN TRYPANOSOMIASIS)

TABLE IX

Territorial Incidence 1946-1950

					1946		1947		1948		1949		1950
Cases	...	...	...	...	806	...	653	...	681	...	1,412	...	625
Deaths	...	...	...	...	221	...	196	...	200	...	371	...	281
Morbidity per cent	...	...	...	...	27.4	...	30.0	...	29.1	...	26.2	...	44.96

TABLE X

Incidence by Districts 1947-1950

					1947		1948		1949		1950	
					Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths
<i>Central Province :</i>												
Kondoa-Irangi	...	...	...	...	196	13	146	39	52	133	15	16
Singida	...	...	...	...	13	3	5	1	4	1	7	7
Total	...	...	...	...	209	16	151	40	56	134	22	23
<i>Eastern Province :</i>												
Ulanga	...	...	...	...	42	16	5	-	46	20	39	25
Morogoro	...	...	...	...	-	-	-	-	-	-	1	1
Total	...	...	...	...	42	16	5	-	46	20	40	26
<i>Lake Province :</i>												
Biharamulo	...	...	...	...	41	7	53	7	48	5	33	5
Musoma	...	...	...	...	17	-	9	2	11	-	69	11
Mwanza	...	...	...	...	3	1	2	-	43	7	28	7
Total	...	...	...	...	61	8	64	9	102	12	130	23
<i>Northern Province :</i>												
Mbulu	...	...	...	...	48	15	15	5	38	5	99	12
<i>Southern Province :</i>												
Kilwa (Liwale)	...	...	...	...	9	3	-	-	1	-	-	-
Lindi	...	...	...	...	1	1	-	-	-	-	1	-
Masasi	...	...	...	...	7	4	46	4	36	4	4	-
Songea	...	...	...	...	3	-	1	-	-	-	-	-
Tunduru...	...	...	...	...	18	3	20	13	7	3	7	3
Ruponda	...	...	...	...	-	-	-	-	-	-	27	1
Total	...	...	...	...	38	11	67	17	44	7	39	4
<i>Southern Highlands :</i>												
Mbeya	...	...	...	...	-	-	-	-	-	-	1	1
Chunya	...	...	...	...	1	-	4	-	29	1	18	1
Total	...	...	...	...	1	-	4	-	29	1	19	2
<i>Western Province :</i>												
Buha (Kibondo)	...	...	...	...	76	56	105	93	361	98	256	158
Kahama	...	...	...	...	98	29	84	100	230	48	132	59
Kigoma	...	...	...	...	1	1	22	1	7	2	10	-
Tabora	...	...	...	...	79	44	146	16	458	41	202	59
Ufipa	...	...	...	...	-	-	-	-	-	-	-	-
Mpanda	...	...	...	...	-	-	18	19	41	3	25	5
Total	...	...	...	...	254	130	375	129	1,097	192	625	281

46. Compared with 1949, the number of cases of sleeping sickness reported during 1950 had markedly declined in the Western Province and slightly increased in the Lake Province. As a result of the marked increase in incidence in the Western Province during 1949, special measures were taken during the year under review to bring the disease under proper control. Extensive surveys were made in Kibondo, Biharamulo and Tabora Districts and the staff of settlement officers of the Provincial Administration was increased. A medical officer seconded for sleeping sickness duties was instrumental in co-ordinating the interests of the various departments concerned with sleeping sickness and the control of tsetse fly.

47. In medical surveys carried out in the three districts referred to above, a total of 31,481 blood slides were examined, of which seven were found to be positive to trypanosomes. The surveys revealed no evidence of symptomless carriers, that is to say, all positive blood slides were taken from persons actually suffering from the disease. In the Lake Province aerial surveys were carried out in the Geita district where cases of sleeping sickness were occurring, and where the spread of the disease seemed likely. These aerial surveys revealed nothing of significance. Ground plans were prepared to demarcate the western boundary of the infected areas within this Province for settlement under the Sukumaland scheme.

48. A settlement officer was posted to Biharamulo and work was begun in clearing and improving existing population settlements. In Musoma district a sharp outbreak of sleeping sickness occurred at Ringwani to the north of Ikoma. The outbreak was believed to be an extension from an existing focus at Ikoma.

49. An increased incidence of sleeping sickness was noted at Magugu in the Northern Province among labourers working on European farms and steps were taken to enlarge the labour line clearings. One case occurred near Mesarani and is believed to be the first recorded case of sleeping sickness in Masailand. The origin of this infection is not traced, but may have been brought by infected labourers from elsewhere.

50. In the Eastern Province forty cases were reported. Thirty-two of these came from within twenty miles of Malinyi in Ulanga District. This area has for the last few years been the main focus of sleeping sickness in the Eastern Province and the majority of cases have emanated from there. In addition, a new focus of infection was discovered in the Cheva-Ilanga area of Ulanga District. The only new focus reported in the Southern Province was near Kilima-Rondo in Tunduru District, two cases being discovered. Despite this new focus the over-all number of cases from Tunduru has shown a steady fall, from forty in 1942 to four in 1950; this decline has been attributed to the intensive use made of sleeping sickness scouts.

MALARIA AND BLACKWATER FEVER

TABLE XI

Territorial Incidence 1946-1950

	1946	1947	1948	1949	1950
(a) <i>Malaria</i> :					
Out-Patients ...	96,523	118,738	124,242	129,638	146,245
In-Patients ...	10,631	13,962	13,796	11,567	13,498
Deaths (I.Ps.) ...	192	264	264	261	340
Mortality per cent (I.Ps.) ...	1.8	1.9	1.9	2.2	2.5
(b) <i>Blackwater Fever</i> :					
Out-Patients ...	10	8	—	27	3
In-Patients ...	54	38	23	22	34
Deaths (I.Ps.) ...	9	12	5	7	6
Mortality per cent (I.Ps.) ...	16.67	31.5	21.7	31.8	17.6

51. In November a Malaria Conference under the auspices of the World Health Organization was held in Kampala, Uganda, and was attended by the Director of the East African Malaria Unit, Dr. D. Bagster Wilson, representing the East African group of territories.

52. In readiness for this Conference Dr. Bagster Wilson collaborated with other experts in the preparation of a review of hyperendemic malaria with special reference to East Africa; this provided the material for a lively discussion resulting in unanimous agreement that the pathological and immunological effects of malaria on communities exposed to hyperendemic infestation in tropical African territories should be systematically investigated. The magnitude of the malaria problem among the peoples of tropical Africa and its significance in relation to projects of industrial and agricultural development were emphasized. Although successful campaigns against this disease were reported from other African territories, their costing revealed the importance of continuing the search for means of achieving equally effective but cheaper methods of control than have been applied hitherto.

53. Meanwhile, preliminary observations in this territory by the Inter-territorial Malariologist in collaboration with the Colonial Insecticide Research Unit have continued in connection with the application of residual insecticides directed against adult mosquitoes and to larvicides applied to aircraft. A trial of paludrine for the protection of a susceptible African community was also in progress by the end of the year.

54. Routine control measures against malaria are limited to townships and their immediate environs and are directed mainly against the immature stages of mosquitoes by means of drainage and swamp reclamation and the application of chemical larvicides.

RELAPSING FEVER

TABLE XII

Territorial Incidence 1946-1950

				1946		1947		1948		1949		1950
Out-Patients	...	...	...	3,844	...	3,605	...	3,004	...	2,552	...	1,929
In-Patients	...	...	...	1,926	...	1,694	...	1,223	...	2,036	...	1,948
Deaths (I.Ps.)	...	...	...	32	...	27	...	33	...	15	...	19
Mortality per cent	...	...	...	1.6	...	1.5	...	2.7	...	0.73	...	0.9

55. The number of cases of relapsing fever treated as out or in-patients in Government hospitals has declined fairly steadily during the past five years. A slight upward trend during 1950 compared with the previous year was reported from a few districts but this was almost certainly due to improved diagnostic methods. The decline in mortality noted during 1949-1950 compared with previous years is not regarded as significant.

56. In Morogoro the good effects of treating houses within urban areas with gammexane are still being demonstrated. At very little expense and effort the number of cases of relapsing fever occurring within Morogoro township itself was kept at a low figure. At Liwale it is reported that ticks were beginning to reappear after a single thorough treatment given by the sanitary staff of the Overseas Food Corporation as far back as 1948.

57. In Mwanza township, the tick eradication measures with the gammexane preparation (D.220) containing 0.5 per cent of gamma isomer were continued throughout 1950, and resulted in a marked decrease in the number of cases reported from the township area (eighty-seven cases in 1950 compared with 186 in 1949). In Tabora township tick eradication measures also using gammexane (D.220) were intensified from mid-1950 onwards and resulted in appreciable decline in the incidence of relapsing fever, namely 176 cases compared with 232 in the previous year.

(c) HELMINTHIC INFECTIONS

SCHISTOSOMIASIS

TABLE XIII

Territorial Incidence 1945-1960

				1946		1947		1948		1949		1950
Out-Patients	...	...	...	10,671	...	9,217	...	14,036	...	12,538	...	11,418
In-Patients	...	...	...	672	...	620	...	723	...	778	...	827
Deaths (I.Ps.)	...	...	...	5	...	10	...	14	...	17	...	10

58. The true incidence of schistosomiasis is far greater than the figures quoted above would indicate. The great majority of cases do not report for treatment since in the case, at any rate, of the urinary form of the disease, clinical symptoms other than haematuria are usually absent. For example in the Pare district (Tanga Province) only eighty-two out of 6,360 out-patients at the district hospital were recorded as schistosomiasis although it is well known that the disease has a high degree of endemicity in this Province.

Again, in Mbugwe (Northern Province) 178 out of 196 school children attending the Catholic Mission and Native Authority schools were found on examination to be infected. It was ascertained that the disease had been contracted from a nearby water furrow heavily infested with the host snails.

59. In the Southern Province, Nilodian treatment has been instituted by Dr. Maclean of the Universities Mission to Central Africa (Nyasaland Diocese) among the dense and heavily infested population along the shores of Lake Nyasa in Songea District. In the Lake Province the disease is prevalent among those living along the southern and eastern shores of Lake Victoria and the adjacent hinterland but appears to be uncommon on the west side of the Lake. The East African Medical Research Unit at Mwanza proposes to carry out a medical and sanitary survey in a selected area of Kwimba District followed by an attempt to eradicate the disease in the surveyed areas.

ANKYLOSTOMIASIS

TABLE XIV

Territorial Incidence 1946-1950

				1946		1947		1948		1949		1950
Out-Patients	...	...	...	25,327	...	23,720	...	23,544	...	22,813	...	23,054
In-Patients	...	...	...	2,509	...	2,633	...	2,746	...	2,458	...	2,874
Deaths	...	...	...	142	...	152	...	131	...	121	...	169
Mortality per cent	...	...	...	5.69	...	5.77	...	4.77	...	4.10	...	5.5

60. The number of cases of ankylostomiasis treated remains stationary and there is little to add to what has been written in previous annual reports. The true incidence of the disease is much greater than the above figures indicate and it may well be largely responsible directly and indirectly for much of the ill-health and physical inefficiency afflicting such a high proportion of the African population in this territory.

IV.—MATERNITY AND CHILD HEALTH

61. Maternity and child health in Dar es Salaam is under the care of a whole-time medical officer and a staff of nursing sisters and health visitors. The Maternity Hospital has 34 beds, excluding cots, with two labour rooms. Daily ante-natal and post-natal and child health clinics are held; domiciliary health and maternity work is undertaken by the health visitor staff, and it is the Centre—the only Government one at present—for the training of African certificated midwives. Shortage of nursing staff was a serious handicap to the activities of this clinic during the year. The one permanent health visitor employed on domiciliary work in Dar es Salaam paid a total of 3,461 visits to African homes and schools. Much of her time was occupied in following up and advising on reported cases of communicable disease.

62. Maternity centres and ante-natal and post-natal clinics are maintained at most of the major district hospitals and the volume of institutional work is progressively increasing.

63. The following table (Table XV) records the number of institutional confinements and ante-natal attendances at Government, Native Authority and Mission maternity centres during 1950. For further statistical details see Appendix XI.

TABLE XV
Government and Native Authority Maternity Centres

					Confinements		Ante-natal Attendances
Central Region	...	...	...	...	1,278	...	1,351
Eastern Region	...	...	...	...	200	...	505
Northern Region	...	...	...	...	2,534	...	6,967
Western Region	...	...	...	...	3,227	...	5,175
Dar es Salaam	...	...	...	...	782	...	1,081
Total				...	8,021	...	15,079

Mission Maternity Centres

Central Region	...	...	...	...	1,599	...	3,588
Eastern Region	...	...	...	...	1,579	...	2,579
Northern Region	...	...	...	...	2,037	...	4,930
Western Region	...	...	...	...	4,887	...	6,492
Total				...	10,102	...	17,589

64. The shortage of maternity staff, particularly of certificated African midwives was a handicap to the expansion of maternity work and steps are now being taken to increase as rapidly and as early as possible the output of trained midwives. Meanwhile, uncertificated or "practical" midwives under the supervision of European nursing staff are performing valuable work at some district centres where domiciliary midwifery is being developed.

65. The Regional A.D.M.S., Western Region, reviewed the existing maternity and child health facilities in the Lake Province during 1950. After drawing attention to the prevailing shortage of trained African staff the suggestion was made that local tribal or traditional midwives might be induced to accept a short course in elementary hygiene of three to four weeks duration in the hope of improving standards of cleanliness and of persuading them to abandon the more undesirable features of their midwifery activities. This scheme has already been started in the Bukoba District. There is of course no question that this class of midwife would be employed by the Department or by the Native Administration. A "nominal roll" of tribal midwives in a locality in Bukoba District has already been prepared.

66. At Tabora and Nzega in the Western Province there are important maternity centres undertaking both institutional and domiciliary maternity work. In and around the township of Tabora, domiciliary midwifery is increasing very satisfactorily. Of 558 assisted deliveries 219 were carried out in the homes of mothers by "practical" midwives. At Nzega emphasis is placed on institutional confinements. Here, there were 712 admissions with 411 live births and thirty-six still births during 1950; the remaining admissions were for medical conditions associated with or arising out of pregnancy.

67. The posting of two health visitors to the Maternity and Child Health Centre at Tukuyu (Rungwe) in the Southern Highlands Province led to considerable improvement in the quality of work undertaken there.

68. Dr. Cicely Williams, Advisor on Maternity and Child Health to W.H.O., visited the territory towards the end of 1950, and submitted a report containing a number of constructive suggestions as to the improvement of maternity and child health services in this territory. Many of these recommendations are being implemented.

V.—SCHOOL HEALTH

69. It was reported during 1950 that recurring attacks of tonsilitis had occurred at Lushoto European School. Nineteen out of seventy-two children tested were schick positive, but sixty-one throat swabs showed no evidence of diphtheritic or pathogenic streptococcal organisms. It was concluded that a mixed bacterial infection was being maintained by the children at the school.

70. All children at the European School, Mbeya, were examined thrice yearly. Two outbreaks of chickenpox occurred and during the Christmas term upper respiratory tract infections with involvement of the middle ear were common.

71. At Tabora the pupils of the Government African boys' and girls' schools and of St. Mary's Secondary School were examined : a total of 735 boys and 196 girls. Of these, sixty-eight were found to have ankylostomiasis and twenty bilharziasis. The nutritional state of the pupils was reported to be good, especially among those who had long periods of residence at school. Malaria prophylaxis using paludrine was continued at certain schools during 1950 with, it is stated, marked success, the cases of reported malaria declining to negligible numbers.

72. Among the Masai in the Northern Province the incidence of corneal ulceration was reported to be high among school children and was stated to be attributable to neglected conjunctivitis aggravated by the unclean habits of the tribe. It is probable that nutritional causes were at work.

73. In Kazima approved school where 146 boys were living, forty-three cases of malaria, twenty-eight cases of helminthiasis and twenty-eight cases of injury were reported. Bilharziasis was also found. The state of nutrition was described as good.

VI.—HEALTH EDUCATION

74. Limited progress in organized health education was made during 1950. A mobile cinema attached to the Social Welfare Department toured the territory displaying some films of medical importance. Of local interest was a film depicting the work done at the Maternity Hospital, Dar es Salaam.

75. In the Northern Province two Walt Disney education films were borrowed from the American Consulate, one on hookworm and the other on malaria transmission. These films were shown by the Social Welfare officer to a number of audiences and appeared to be well received, at any rate among the more educated sections of the audience.

VII.—NUTRITION AND FOOD SUPPLIES

76. The Department was without the services of a nutrition officer during 1950. A considerable amount of evidence has accumulated over previous years from various sources and from various parts of the Territory to indicate that, generally speaking, the level of nutrition of large sections of the African population is low. Outside of prisons frank nutritional deficiency diseases with classical manifestations are not often seen but there is no doubt that less evident and insidious manifestations of defective nutrition are nearly everywhere prevalent. Trials of food yeast were continued during the year and in one trial at Morogoro the local population evinced a dislike of the taste, appearance and smell of this substance. Elsewhere, comments were more favourable.

77. Outbreaks of pellagra appear periodically in Government prisons, three of these, involving 132 prisoners, being reported in 1950. Milder degrees of kwashiorkor are also common and a small outbreak was reported in Nzega District during the year. Beriberi is very uncommon, while scurvy and Vitamin A deficiency is occasionally reported.

78. Goitre is endemic in the Kizaba district of Bukoba and has been reported as being fairly common in the western part of the Southern Province. It has also recently been noted in the Njombe district of the Southern Highlands Province. The standards of feeding at the majority of commercial estates has on the whole been satisfactorily maintained as a result of the enlightened attitude of many employers towards their employees. A considerable number of estates grow some of their own supplies of food for consumption by their labour. An accepted feature of agronomic policy is to increase the production and distribution of foods of high nutritive value preferably those of local origin and known to thrive in local soils. The formation of a Central Advisory Nutritional Committee for the Territory has been advocated as a means of co-ordinating local agricultural and health educational programmes with the nutritional needs of the people.

79. A number of agricultural projects are in operation with the object of increasing the production of crops and combating soil erosion. While these schemes have no specific medical component or purpose they are clearly of importance from a nutritional point of view.

VIII.—ENVIRONMENTAL HYGIENE

(a) HOUSING AND TOWN PLANNING

80. A scheme for low density housing in a section of Mwanza township was approved and building commenced during the year in conformity with the approved plan. Similar schemes for areas of high and medium density have not yet begun. In Tabora township much overcrowding and bad sanitation was reported in the bazaar and African residential areas. In both Tabora and Nzega townships a £500 building covenant has been imposed in the African zones.

81. Uncontrolled development in the perimeter of Morogoro township presented a problem in the highly undesirable housing and sanitary conditions which developed as a result.

82. At Mtwara, building is going on to an approved plan and a health inspector was posted there to ensure that preventable errors of sanitation should not occur.

83. In the Northern Region, overcrowding remained the most pressing sanitary problem in Moshi and Arusha townships. During the period 1946-1949 the density figure per acre had risen from sixty to 100 and by 1950 it is reported that the latter figure had been considerably exceeded. In view of the fact that both townships are composed largely of single storey houses, this density indicates considerable overcrowding.

84. Much building activity in townships is reported in the Central Region, but overcrowding in urban areas continued to constitute a problem, frequently associated with inadequate water supplies. In Dodoma the standards of construction in the African and commercial zones is reported to be unsatisfactory.

(b) WATER SUPPLIES

85. In many districts water supplies have proved inadequate and a potential danger to public health. Tabora in particular is poorly supplied with water and on many occasions it has had to be railed from the Malagarasi River. In Kilwa a satisfactory water supply has not yet been installed, while in Tindi the passing years have seen no advance towards a safe and adequate supply, despite the relative size and importance of this township. In Mtwara two good wells have been constructed, but in general the water supply remains precarious, the people being forced by circumstances to use shallow insanitary wells.

(c) FOOD HYGIENE

86. One of the major problems in food hygiene in the Territory was the continued adulteration of milk by water and in many districts steps were taken to combat this problem, notably in Tanga, Moshi and Tabora; but frequent failure of the public to co-operate made it difficult to control the activities of the itinerant vendor. The standards of cleanliness of food and hygiene in many hotels and restaurants left much to be desired and the health staff spent much of their time in attempting to improve conditions.

(d) URBAN SANITATION

87. The shortage of qualified health staff at nearly all stations was a serious hindrance to the efficient supervision of urban public health services. Little time was left to the inspectorate to deal with other than the major health problems.

88. Tick (*Ornithodoros moubata*) control measures, actively pursued in Morogoro, Tabora and Mwanza, continued to produce excellent results and the number of admissions to hospital of cases of relapsing fever from the treated areas showed a marked decline.

89. In the Southern Province the available health staff was predominantly engaged in anti-smallpox measures which prevented much time being spent on routine sanitary work. In Lindi township the standard of general cleanliness showed some signs of improvement but the poor drainage and the insanitary public latrines continued to be serious nuisances. In Mtwara a small insanitary settlement was moved to a prepared site on higher ground.

90. In the Northern Province a medical officer of health was posted to Arusha for public health duties in the Province. In the Central Region serious sanitary problems resulting from overcrowding in townships are reported, while the lack of funds and adequate supervision were a handicap to sanitary progress in the minor settlements.

91. In Mbeya, the gradual conversion of pit latrines to a septic tank system of sewage disposal continued. In Chunya township it was found possible to increase the funds for sanitary labour with a resulting improvement in the cleanliness of streets and public places.

(e) RURAL SANITATION

92. In rural areas, efforts to improve sanitary standards are for the most part inconspicuous and must necessarily remain so until trained sanitary personnel becomes available. In Tanga District a six month's course of instruction for sanitary headmen was conducted by the Medical Officer of Health. In the Lake Province good work was done by an experimental health committee in North Mara in an attempt to improve the sanitation of Tarime. At Magugu and Mbugwe anti-bilharzia measures were carried out but the results are not yet available.

IX.—INDUSTRIAL HEALTH

HOUSING

93. Slow but continued progress was made during the year in the provision of satisfactory housing for employed labour. Progress was most evident in the sisal industry and it is reported that temporary buildings on these estates are now in the minority.

94. The Railway Administration continued its programme of African re-housing and during 1950 a total of 161 permanent quarters were built.

95. The lack of sufficient supplies of pure water for employed labour housed on estates is a perennial problem in many parts of the Territory and has led to a number of outbreaks of gastro-intestinal disease which, on investigation, were traced to polluted water supplies. In consequence of these warnings a number of estate managers have gone to the considerable expense of installing suitable pumping, storage and purifying arrangements for their domestic water.

96. The scales of rations prescribed by law have, generally speaking, been adhered to within the limits of available supplies. There were shortages during the year of beans and groundnuts as a result of the failure of local food crops but adequate supplies of staple cereals were maintained everywhere.

97. The health of employed labour has remained on the whole satisfactory.

98. It is noteworthy that diseases associated with the respiratory system are common among all tribes of the Territory and particularly noticeable in high altitude employment areas where variations in daily temperatures are marked. Steady improvement in medical care and treatment facilities by the larger employers was noticeable during the year. A number of hospitals of adequate size and sufficient equipment were completed or were in course of construction by the end of the year.

99. There were no serious epidemics in industry during the year apart from a number of small scale attacks of waterborne disease of enteric type referred to in paragraph 95.

100. It is evident that the root of much ill-health among the African is chronic malnutrition which is not frequently obvious so far as gross physical signs are concerned. Employers are realising to an increasing extent the importance of an adequate diet for their labourers as a means of improving physical efficiency and reducing sickness rates. Apart from the physical aspect, it is reported that on estates where an adequate diet has been maintained, the labour forces were more contented than those with less progressive managements.

101. The problem of industrial disease has not yet assumed major proportions in the Territory, but there can be little question that with the expansion of mining activities the "dust diseases" will become an increasingly important health hazard. At least three cases of silicosis were confirmed during 1950 on an established gold mine. There is evidence that silicosis in the Territory may be acquired with symptoms of advanced disease after a much shorter period of exposure than is usual in other countries.

102. The potential dust problems associated with industrial development led Government in 1950 to approach the Medical Research Council with a request for expert assistance and advice. The intention of any investigation which may eventuate is that it shall not be restricted to the examination of mining dusts alone but of dusts associated with other industries likely to affect health.

X.—INTERNATIONAL AND PORT HEALTH

103. Certain aspects of international sanitary control as it affects this Territory have become out-dated and unrealistic in the light of modern knowledge of epidemiology. Steps were accordingly taken during the year to modernise these in accordance with recommendations published by the World Health Organization. The continued omission of Tanganyika from the endemic zone of yellow fever was illogical because a sufficient number of positive mouse protection tests had been discovered, mainly on the coastal settlements; these results clearly indicated past infection by the virus of yellow fever. No actual cases of yellow fever have so far been reported in Tanganyika and it seems probable that the positive reactors had passed through a mild attack of the disease. In conformity with the provisions of the International Sanitary Conventions, and in view of the fact that both Kenya and Uganda were already included in the endemic zone of yellow fever, it was proper that Tanganyika should similarly be included. With the evidence available, the World Health Organization was accordingly requested to recognize Tanganyika as an endemic area of yellow fever.

104. The general question of international sanitary control at mutual frontiers was considered, and representations were made to the Governments of the Belgian Congo and Ruanda Urundi with a view to simplifying inter-territorial sanitary restrictions including the abolition of compulsory certificates of vaccination against smallpox and yellow fever and certificates of freedom from infectious disease. It was further recommended that in place of such certificates there should be an obligation on the part of the Governments concerned to notify as early as possible the occurrence of "Convention" and other diseases of inter-territorial concern should they break out in their respective territories; further steps would be taken by the Governments concerned to circumscribe and control such disease reported

105. Correspondence which commenced in 1949 between the East African territories on the subject of compulsory inoculation against cholera in the case of travellers from India continued during 1950. This Government finally decided not to insist on certificates of anti-cholera inoculations in the case of travellers entering the Territory.

106. In compliance with Article forty-nine of the International Sanitary Convention of 1944, Tanganyika does not issue written bills of health to ocean-going craft. Many masters, however, insist on having them in view of the requirements in this respect of certain other countries. Steps are being taken to remedy this difficulty by inter-territorial agreement.

107. The ports of Tanga, Dar es Salaam, Kigoma, Musoma, Mwanza and Bukoba remained free from "Convention diseases", but smallpox occurred in Lindi township near the port area. No major epidemic disease was reported as having occurred in any ships entering the above-named harbours.

XI.—PRISON HEALTH

108. Outbreaks of deficiency disease were reported during 1950 at Kingolwira and Songea prisons. The clinical features could be ascribed to lack of the Vitamin B complex. Few cases had frank pellagra while the majority of the cases had sore tongues, cracked lips and debility. Altogether there were about seventy cases at Kingolwira and twelve cases at Songea. As far as could be ascertained, all the men developed their symptoms whilst in jail and the Regional Assistant Director of Medical Services, Morogoro, expressed the opinion that there seemed to be a connection between maize flour as a staple article of diet and the incidence of the deficiency diseases. Further investigations into prison diets are required and are at present in progress.

109. An outbreak of frank pellagra affecting fifty prisoners occurred during 1950 in Dodoma prison and the Regional Assistant Director of Medical Services, Mbeya, reported that the most serious deficiency in the diet was groundnuts. When these were procured no further cases occurred. Apart from the above-mentioned outbreaks of deficiency disease no unusual morbidity among prisoners was reported.

PART III—CURATIVE SERVICES

XII.—HOSPITALS

DAR ES SALAAM HOSPITALS GROUP

110. With the exception of the "Special" hospitals of Kibongoto and Dodoma, the Dar es Salaam hospital group is the only one which functions as a self-contained unit outside the regional administrative system. The group consists of the "European" hospital (used for both Europeans and Asians), the Sewa Haji hospital (for Africans and Asians), the Infectious Diseases hospital and the Maternity and Child Welfare Clinic. It is administered by a Board of Management with a senior clinical officer as Chairman and a hospital superintendent as chief executive officer. With the new constitution it has been possible to effect far reaching improvements during 1950.

111. Early in the year the nursing services covering the group were put under the control of a single matron. By the end of the year it was apparent that this arrangement was not entirely satisfactory owing to the wide distribution of the hospitals comprising the group. It is accordingly intended to revert to the system of a matron or sister in charge at each of the principal hospitals in Dar es Salaam.

112. Transport continued to cause concern. Of the three ambulances attached to the hospital group, two remained in good condition, while the third was barely fit for service. One staff car only was available for the transport of both staff and supplies.

113. The hospital Welfare Committees of both the European and Sewa Haji Hospitals met regularly throughout the year and their members paid frequent visits to the hospitals. Many suggestions for improvements were made and several were adopted.

114. The Red Cross Society regularly increased its hospital activities during the year. Among these was a "milk for motherless babies" scheme at the Maternity and Child Welfare Clinic, occupational therapy of a very high standard at the Infectious Diseases Hospital and the Sewa Haji Hospital, and visits to a nearby leprosy settlement.

115. Water shortage in Dar es Salaam continues to cause inconvenience at all the hospitals, but during the year emergency storage tanks were installed at the Sewa Haji Hospital and Maternity and Child Welfare Clinic. Now that the Infectious Diseases Hospital has been equipped with shower baths and water-borne sanitation, emergency storage tanks are likely to be needed there also.

116. Extensive improvements were effected to the "European" Hospital (fifty-four beds) during the year. This included the installation of an electric transformer permitting provision of a new X-ray unit. With the appointment of a radiographer the X-ray department now provides an efficient service. Other electrical installations included an electric laundry and kitchen apparatus. It is too early as yet to assess the value of these innovations, but provided adequate supervision can be ensured, increased efficiency is anticipated. Towards the end of the year the British Red Cross Society initiated a class for Asian female nursing aids. These are expected to commence duties in the European and Asian wards at the beginning of 1951.

117. The Sewa Haji Hospital (249 beds), which is reserved for Africans and a few Asians, has been repainted and the outpatient department provided with a new roof. The appearance and cleanliness of the hospital have been greatly improved as a result. New beds of more suitable type than hitherto have been installed in the African wards; this has facilitated the more efficient examination and nursing of patients and has contributed to the smoother working of the ward organisation. The old beds which still have some useful life have been used to improve the facilities at the Infectious Diseases Hospital. Considerable reorganization of the outpatient department of the Sewa Haji Hospital took place during the year as a result of the appointment of a second hospital superintendent who arrived during the year to take up his duties in Dar es Salaam. This has resulted in increased efficiency in the manner in which the patients are passed through the various hospital departments and a reduction in the numbers of persons awaiting treatment in the outpatient wing itself. On the other hand, the hospital still suffers from intrinsic unsuitability of design and particularly the small size of the outpatient department in relation to the large number of patients who wish to be seen. On some days as many as 900/1,000 attendances are

reported. Such numbers inevitably place a heavy strain on the outpatient medical staff, and many of these attendances are of a type which could more conveniently be dealt with at satellite dispensaries rather than at the hospital proper.

118. Extensive alterations and improvements have been carried out at the Infectious Diseases Hospital (138 beds). All wards have been provided with shower baths and water-borne sanitation. A sluice room has also been built and improved sanitary facilities installed in the nurses' changing quarters. A new laundry has been built and the kitchen rebuilt and equipped with up-to-date cooking facilities and food storage.

119. Improved hospital equipment was installed at the Maternity and Child Welfare Clinic (thirty-four beds) and an emergency water storage tank built. All wards have been repainted and communicating paths between buildings treated with tarmac, thereby reducing the quantity of dust carried into the buildings.

DISTRICT HOSPITAL SERVICES

Western Region.

120. The principal Government hospitals in the Western Region are at Mwanza, Tabora, Bukoba, Musoma and Kigoma. Mwanza hospital had accommodation for sixteen European and 119 non-European patients at the end of the year although the normal complement is somewhat in excess of this: the temporary shortage was due to dislocation caused by the rebuilding of three utility type wards, work on which has recently been completed. This hospital functions as an important training establishment for rural medical aids. Next largest in the Western Region is the Tabora hospital comprising nineteen European beds, 118 non-European beds and sixteen maternity beds for Africans. Bukoba has 149 beds all reserved for non-Europeans. Musoma has 120 non-European beds and six European beds. Kigoma has fifty beds for non-Europeans. All these hospitals are staffed by medical officers and, with the exception of Kigoma, by nursing sisters.

121. Subsidiary hospitals in charge of qualified practitioners or junior service staff in the Western Region are Shinyanga (sixty-eight beds), Nzega hospital and maternity clinic (fifty-eight beds), Kahama (fifty-eight beds), Biharamulo (forty beds), Shanwa (thirty-four beds), Sumbawanga (thirty-one beds) and Kasulu (seventeen beds). None of these hospitals provides accommodation for European patients.

122. Mission hospitals staffed by registered medical practitioners in the Western Region, are at Sumve and Kabondo (White Fathers' Mission), Ndolage (Swedish Lutheran), Nkolondoto (Africa Inland Mission), Shirati (Mennonite), Sikonge (Moravian) and Manyovu near Kasulu (Seventh Day Adventists).

Eastern Region.

123. The hospitals in the Eastern Region to which medical officers were posted during 1950 are at Morogoro, Lindi, Kilosa and Songea. Morogoro hospital is the largest Government hospital in the Region and provides 191 beds of which nine are used for Europeans and Asians in a separate block. During the year improvements to the X-ray unit were effected. Lindi hospital has eighty-nine beds including a separate European block of nine beds; Kilosa has fifty-four beds and Songea forty-eight beds, neither with special accommodation for European or Asian patients.

124. Subsidiary hospitals in charge of qualified medical staff of the Junior Service are Mahenge (seventy-eight beds), Bagamoyo (forty beds), Utete (thirty-three beds), Kilwa (twenty-eight beds) and Mafia (fourteen beds). At Kingolwira prison there is a hospital of forty-nine beds under the charge of an assistant medical officer and reserved exclusively for prisoners and prison staff.

125. Mission hospitals with registered medical practitioners in charge in the Eastern Region are at Minaki, near Dar es Salaam (U.M.C.A.), Kwiwa (Capuchin R.C.), Masasi and Lutindi (U.M.C.A.), Ndanda, Mnero and Peramiho (Benedictine R.C.).

Northern Region.

126. The principle hospitals under the charge of medical officers in the Northern Region are at Tanga, Moshi, Arusha, Oldeani and Monduli.

127. Tanga hospital (282 non-European beds and twenty-eight European beds) is the largest hospital in this region and the second largest in the Territory. During the year a surgical specialist was posted to this hospital. A hospital (lay) superintendent was appointed for the first time and a hospital management committee constituted to administer the hospital group comprising a main African section, a European and Asian section, infectious diseases block and the maternity and child health clinic, all of these being widely disposed in the town. The new constitution is functioning well and many administrative improvements have been effected. During the year a new operating theatre was built to serve the African wing of the group.

128. Moshi hospital has 140 non-European beds and eight European beds. Work was commenced on a new Asian ward and a new operating theatre during 1950. At Arusha hospital (110 non-European and ten European beds), the staff was expanded from one medical officer to two medical officers during the year in view of the increase of work caused by the rapid growth of population of this area. Oldeani hospital (fifty-three non-European and four European beds) is under the charge of a medical officer on contract terms. Monduli hospital has twenty-six non-European beds.

129. Subsidiary hospitals under the charge of Junior Service practitioners in the Northern Region are at Muheza (eighty-four beds), Korogwe (sixty-nine beds), Usanga (thirty-six beds), Lushoto (thirty-one beds), Mbulu (twenty-eight beds) and Pangani (twenty beds). None of these hospitals makes special provision for non-African patients.

130. Kibongoto Tuberculosis hospital and sanatorium has a total of ninety-eight authorised beds, though there are in fact many additional patients accommodated in temporary shelters (see para 33 *et seq.*).

131. Lutindi Mental Hospital has 105 beds. This hospital is used for the care of long standing, incurable mental cases. Owing to staff shortage it has not been possible to post a medical officer to this establishment and to provide skilled psychiatric treatment as is undertaken at the principal mental hospital, Dodoma.

132. Mission hospitals staffed by registered medical practitioners in the Northern Region are at Ndareda (Roman Catholic), Machame, Gonja and Bumbuli (Lutheran), and Magila and Kideleko (U.M.C.A.).

Central Region.

133. Hospitals under the charge of medical officers in the Central Region are at Dodoma, Mbeya, Tukuyu (Rungwe) and Iringa.

134. Dodoma Hospital has 113 non-European beds. A new hospital laundry and an extension to the operating theatre was approaching completion by the end of the year. Mbeya hospital has seventy-five non-European and eight European beds. A new operating theatre block in the African hospital and minor improvements at the European hospital were nearly completed by the end of the year. Tukuyu hospital with eighty-one non-European beds is a dilapidated and obsolete unit and will shortly be replaced by a new hospital with 100 beds on a site approximately three miles from the township. In view of the marked expansion of medical activities in the Dodoma district a second medical officer was posted there towards the end of the year.

135. Subsidiary hospitals under the charge of Junior Service practitioners in this region are at Kondoa-Irangi (forty-six beds), Chunya (thirty-one non-European beds, ten European beds), Mpwapwa (twenty-six non-European beds) and Singida (forty-four beds).

136. Dodoma Mental Hospital in the Central Region provides 234 beds for all races. There is normally an alienist in charge. During the year a newly-appointed specialist resigned after a brief period of service. Pending a new specialist appointment a medical officer is at present in charge of this hospital.

137. Mission hospitals under the charge of registered medical practitioners in the Central Region are at Mvumi (Church Missionary Society), near Dodoma, and Kiomboi (Augustana Lutheran) in the Singida district.

XIII.—DISPENSARY SERVICES

138. Of a total of 428 dispensaries in the territory, 416 are owned and maintained by local Native Authorities and twelve by the Medical Department. All of the departmentally owned dispensaries are provided with beds varying in number from thirty-two (Kakonko) to six (Uvinza), and are staffed by qualified medical assistants.

139. The total number of attendances at Government and Native Authority dispensaries is set out in the following table (Table XV):—

TABLE XV

<i>Region</i>	<i>No. of Dispensaries</i>			<i>Total No. of Attendances, 1950</i>		
<i>Eastern :</i>						
Southern Province	27	...	116,115
Eastern Province	70	...	241,253
<i>Northern :</i>						
Tanga Province	34	...	216,005
Northern Province	46	...	345,625
<i>Central :</i>						
Southern Highlands	53	...	662,294
Central Province	39	...	349,306
<i>Western :</i>						
Lake Province	104	...	1,281,769
Western Province	55	...	392,881
			Total	428	...	3,655,248

140. The majority of Native Authority dispensaries are staffed by unqualified "tribal dressers", although an increasing number, approximately 132 at present, are under the charge of certificated rural medical aids who have undergone an approved course of instruction at Mwanza or (the late) Tabora, Tukuyu, Bukoba and Musoma Medical Training Centres. It is the policy of the Department not to approve of the opening of any new dispensaries until qualified rural medical aids or medical assistants can be provided to staff them and they can be adequately supervised by district medical staff. All staff at present at Native Authority dispensaries are employed and controlled by the local Native Authorities. It is recognized that qualified medical staff employed at such dispensaries should be under departmental control and subject to departmental salary scales; this arrangement is to be implemented as soon as practicable. As and when trained staff become available it is intended to enlarge the scope of the dispensary services by introducing personal and public health services such as maternity and child welfare, rural hygiene, school health and public health education.

XIV.—MORBIDITY AND MORTALITY EXPERIENCE IN GOVERNMENT INSTITUTIONS

141. Appendix X to this report records the number of in-patients, out-patients and deaths at Government hospitals. Relevant details in respect of public service dispensaries are given in Appendix XII.

In order to compare the relative importance of the various disease groups in Appendix X the incidence of the principal ones has been calculated as a percentage of the whole and illustrated in diagram "A" (overleaf). The same method has been adopted in the case of deaths from these groups of diseases. To facilitate the production of a simple diagram, certain groups comprising the less common diseases have been combined.

142. It will be observed that by far the largest group of diseases is that caused by infection (Group I, infective and parasitic); this comprises 34.13 per cent of all cases attending for treatment and 38.16 per cent of all those dying in hospital.

143. In diagram "B" (overleaf) the infective and parasitic group has been subdivided into the principal diseases comprising the group. Several interesting facts emerge. It will be observed that while pulmonary tuberculosis accounts for only 1.37 per cent of the morbidity within the group it is responsible for 22.16 per cent of the total deaths within the same group. Malaria accounts for 42.96 per cent of the morbidity but is responsible for only 22.16 per cent of the deaths within this group. It is by far the commonest of all diseases treated at Government hospitals and, despite its relatively low mortality, accounts for more deaths than any other single disease in any group. It will further be observed that the residual sub-group classified in diagram "B" as "other infective or parasitic diseases", while comprising only 3.78 per cent of all cases treated in this group, is responsible for 20.18 per cent of the deaths. The reason for this is that two of the diseases relegated to this sub-group, namely typhoid and cerebro-spinal meningitis, although too small to figure as separate entities in the morbidity diagram, were responsible for a very high proportion of the deaths. In the case of typhoid infections, the percentage morbidity and mortality within Group I was 0.12 per cent and 4.27 per cent respectively; while in the case of cerebro-spinal meningitis the corresponding percentages for morbidity and mortality were 0.08 per cent and 8.91 per cent respectively.

144. As a hospital problem, the infective and parasitic diseases group far outweighs in importance, both in respect of morbidity and mortality, all other groups, and it is against this group of diseases that our principal preventive efforts must be directed.

XV.—SPECIALIST SERVICES

(a) MEDICAL

145. One medical specialist was in residence at Dar es Salaam during the year.

146. Of the cases treated at Dar es Salaam Hospitals Group, the Medical Specialist reported that pneumonia still remains the most important of all respiratory diseases admitted to hospital and that it continues to respond

dramatically to penicillin. The standard treatment was one daily injection of procaine penicillin. It is proposed in future, however, to use distaquaine, a water based procaine penicillin. This is easier to administer and in consequence may prove to be more economical than the older oil based variety.

147. Anaemia of microcytic type was frequently diagnosed at the Sewa Haji Hospital, the primary cause in most cases appearing to be hookworm with, frequently, super-imposed malnutrition. In such cases extraordinarily low haemoglobin estimations, for example, as little as twenty per cent, were sometimes recorded.

Chloromycetin was in regular but limited use. Undoubtedly a specific for typhoid its high cost has led to its being reserved for special cases, the criterion being confirmation of diagnosis by laboratory methods and the probability of a fatal outcome if the drug were to be withheld. The same drug has also had dramatic effect on selected cases of whooping cough. A reduction in price would lead to a much wider use of this preparation.

148. Some experiments have been made with streptomycin in tuberculosis with the object of finding the most economically effective dose.

149. Small quantities of chloroquine have been used for the treatment of malaria and amoebic hepatitis. In malaria it proved the quickest drug to control the actual attack, though it was necessary to follow up with mepacrine to prevent a relapse. In amoebic hepatitis it produces a satisfactory remission of symptoms.

150. Nilodin (nicracil) was on trial in the oral treatment of bilharzial disease. At the Infectious Diseases Hospital (Dar es Salaam) sulphetrone has been used throughout the year, and a preliminary assessment of results in general terms is possible. Treatment with this drug is popular with all leprosy patients as in practically every case there is considerable improvement not only in leprous manifestations but in general health soon after treatment is begun. Tuberculoid cases are usually arrested between six months to one year. Lepromatous cases only begin to show signs of arrest after twelve to eighteen months, and a period of at least two years should be allowed for treatment. Residual disabilities are naturally not affected and any projected scheme of treatment and rehabilitation would have to take into account these with permanent residual impairment of physical function.

151. Diamino-diphenyl sulphone (avlo-sulphone) was introduced at the end of the year, but it is too early yet to comment on its efficiency.

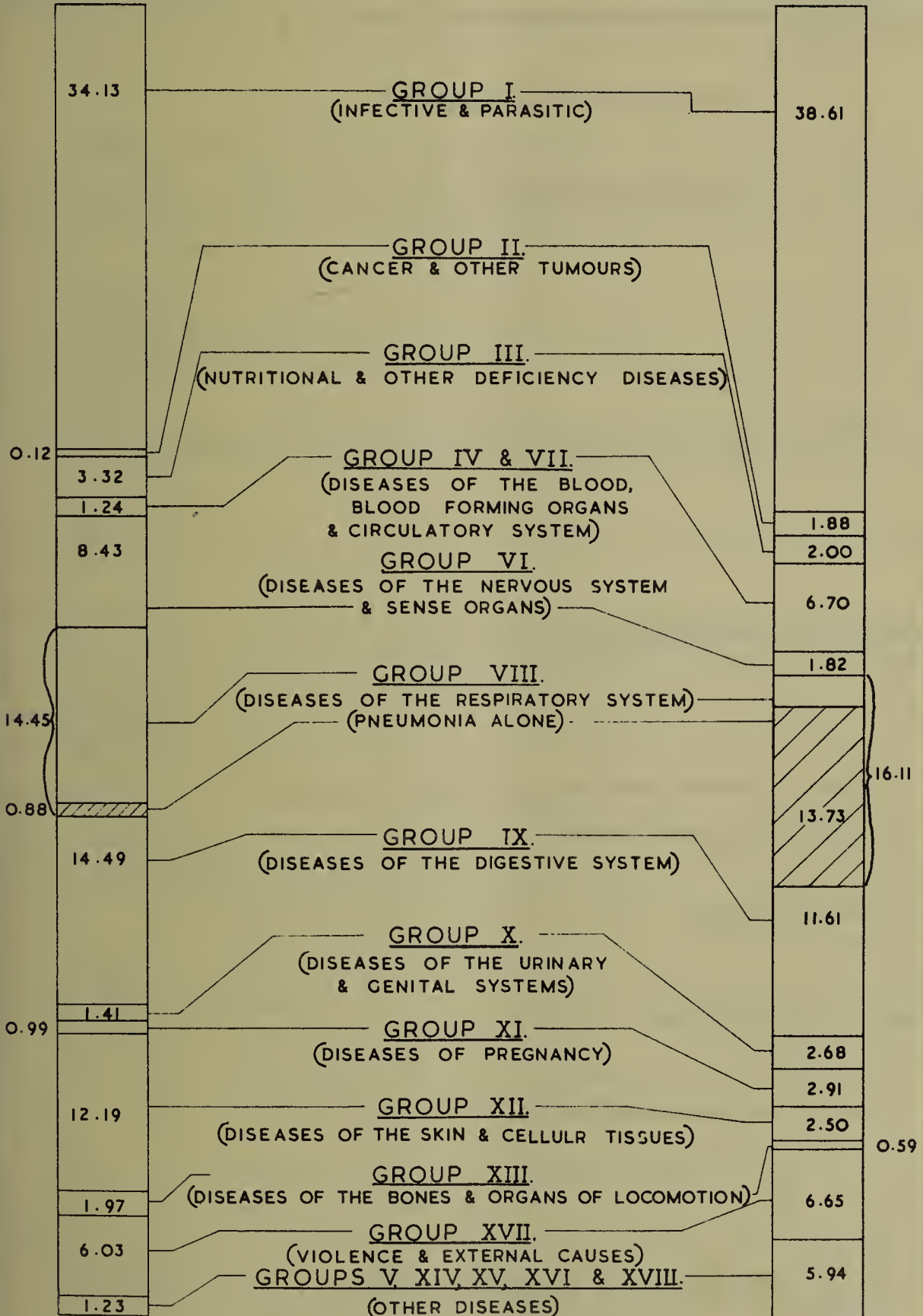
152. Tuberculosis is an important problem at the Dar es Salaam Infectious Diseases wing, but although it is usually impossible to obtain an adequate follow up of discharged cases, experience at the hospital has led to the following general impressions. In bone tuberculosis, prospects of survival are good, though unfortunately crippling is severe. With gland tuberculosis, rest, the administration of large quantities of Vitamin D and in suitable cases

ALL DISEASES.

"A"

MORBIDITY AS %
OF TOTAL CASES.

MORTALITY AS %
OF TOTAL DEATHS.

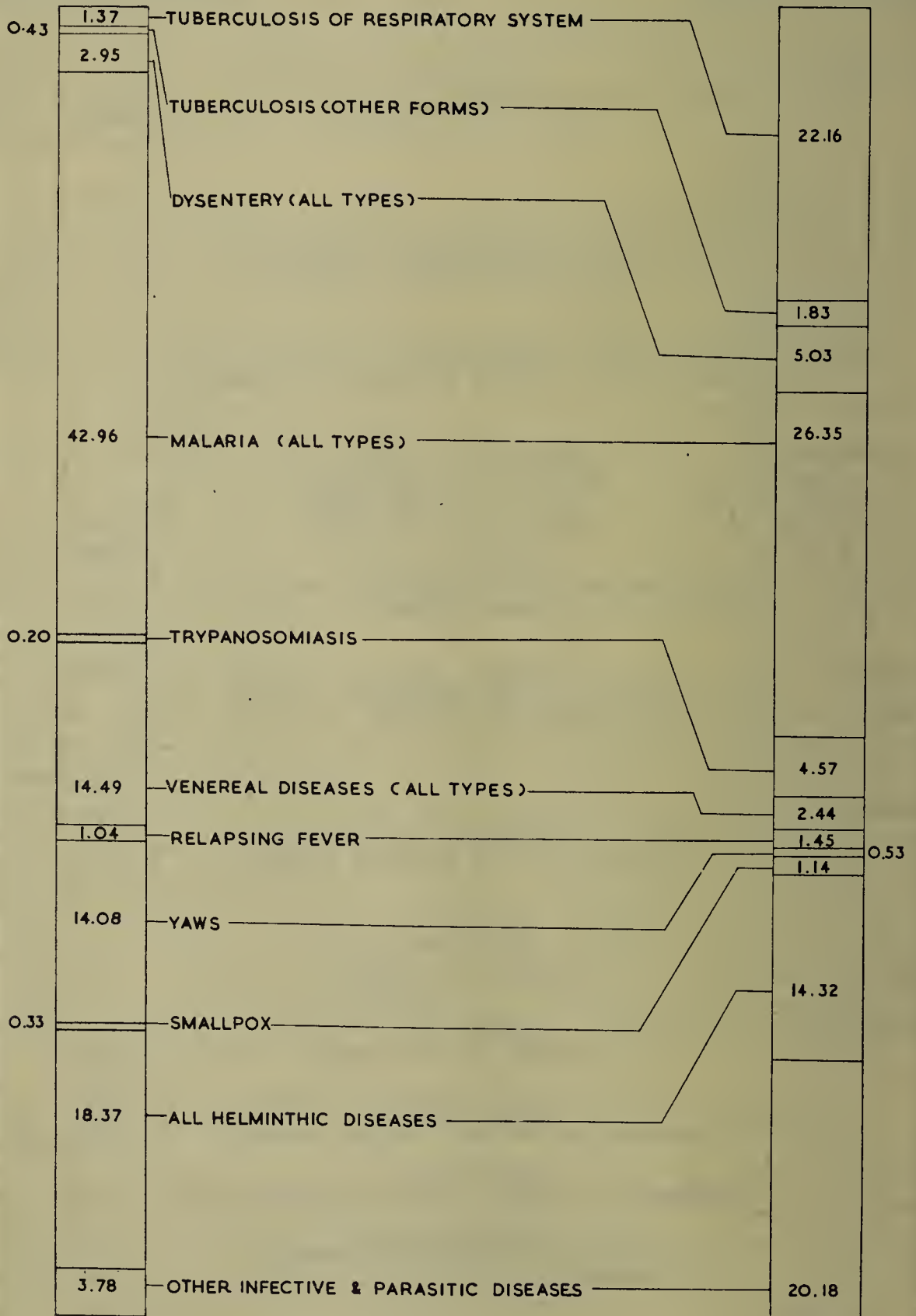


INFECTIVE & PARASITIC DISEASES.

"B"

MORBIDITY AS %
OF TOTAL CASES.

MORTALITY AS %
OF TOTAL CASES.



of streptomycin give good results. Tubercular pleurisy recovers satisfactorily provided rest and good food can be given over a sufficient length of time, i.e. not less than three months. In pulmonary tuberculosis the prognosis, especially in those with positive sputa, is far less favourable, and only exceptionally is the African patient able to check by natural means the rapid progress of infection; natural resistance in the Asian, on the other hand, is very much higher.

(b) SURGICAL

153. For the first two months of the year the territory was without a surgical specialist. One arrived on the 28th February and a second in May. One was posted to the Dar es Salaam Hospitals Group and the other to the Tanga Hospitals Group.

154. The bulk of the surgical work at Dar es Salaam is performed at the Sewa Haji Hospital where 1,064 operations were performed during the year compared with 250 at the European Hospital over the same period.

Most of the surgery was of a routine nature in which, for the purpose of acquiring experience, newly appointed medical officers were given full opportunity to practise.

155. Hernia and hydrocele provided the majority of operative work with traumatic surgery next in order of frequency.

156. With the use of a portable Victor X-ray set it was possible to provide immediate radiological facilities; this has greatly improved the accident service. Chronic osteomyelitis and tropical pyomyositis was often encountered. The latter was sometimes difficult to diagnose, particularly when the lesion was situated in the abdominal muscles.

157. Many cases of urethral stricture were dealt with. Among women, fibroid disease of the uterus was the commonest surgical condition, apathy or neglect by the patient often producing gross lesions. Venereal infection of the uterus and adnexa were frequently found as were vesico-vaginal fistulae of extreme degree. Many cases of special interest were dealt with: several patients with fractured neck of the femur were treated by McMurray osteotomy; lumbar sympathectomy was performed for elephantiasis of the leg; chronic bed sores were treated by rotation flaps; a large dentigerous cyst occupying the entire mandibular body was removed; osteomyelitis of the mandible of a degree and malignancy resembling acute phosphorous necrosis was treated; splenectomy for sickle-cell anaemia with rapid restoration of the blood picture to normal was seen; several successful plastic operations were performed for the relief of contractures following burns; two cases of pharyngeal diverticulum were treated, one being a European; two cases of double tibio-fibula synostosis for chronic osteomyelitis of the tibia were dealt with; and several laminectomy operations were performed for the removal of bony blocks in fracture dislocations of the spine.

(c) OPHTHALMIC

158. A newly appointed ophthalmologist took up his duties in March 1950, and was posted to the Dar es Salaam Hospitals Group. He spent the first few weeks travelling the Territory, assessing its ophthalmic problems. A following period was occupied in improving ophthalmic and sight testing facilities in Dar es Salaam.

159. In all, 3,731 eye cases were seen at the Dar es Salaam hospitals during the year. Of this total 600 were refractions—half of them being European cases. The commonest disease seen was conjunctivitis (1,600 cases) in which excellent results were obtained in suitable cases with the use of sulphacetamide. Three hundred fresh cases of trachoma were seen. Dramatic results were obtained with a limited supply of aureomycin made available for this purpose.

160. At one time there was a minor outbreak of superficial punctate keratitis. This disease, reputedly caused by a virus, is usually diagnosed as conjunctivitis and runs a prolonged course. Two cases of special interest were seen during the year, the first being a quinine amblyopia resulting in total blindness, and the second a retinal burn resulting from observation of an eclipse of the sun without adequate protection.

(d) DENTAL

161. During the year two additional dental surgeons were appointed to the service and one proceeded on leave pending resignation, bringing the strength of the Dental Division at the end of the year to one senior dental surgeon and three dental surgeons. Much territorial touring was carried out by each officer, all provinces being visited with the exception of the Northern Province which is served by a private practitioner with a contractual arrangement with Government.

162. Daily clinics for Africans in Dar es Salaam and Tanga continued throughout the year and treatment of African school children was undertaken in both towns. It is noteworthy that in Tanga all children within a radius of 25 miles of the town are now reported to be dentally healthy.

163. Nearly 10,000 patients attended for dental treatment during the year, over 550 X-ray photographs were taken, over 400 dentures were made and nearly 300 repaired.

(e) MENTAL

164. The total number of patients in the Mental Hospital, Dodoma, fell from 254 at the beginning of the year to 218 at the end; but this apparent fall is misleading since during the year thirty-eight persons of both sexes were transferred to Lutindi Mental Hospital. In addition, seventy-one male criminal lunatics originally resident in the Dodoma Mental Hospital, were transferred to the new "Broadmoor" criminal lunatic asylum.

165. The actual number of admissions to Dodoma during 1950 (212 persons) was the highest since 1943.

166. The classification of patients by race at the end of the year was as follows :—

Male European	...	...	2	Female European	...	...	6
Male Asian	...	...	8	Female Asian	...	...	6
Male African	...	...	113	Female African	...	...	83
Total Males			123	Total Females			95

167. The more common forms of mental illness were schizophrenia (both simple and katatonic), the various manias, acute melancholia and epilepsy. One hundred patients were discharged, eighty of these being cured and twenty improved. It is noteworthy that many patients on admission suffered from malnutrition and vitamin deficiency, particularly pellagra.

168. Occupational therapy and recreation continued to be organised, scholastic instruction for selected non-European patients being held for males in the mornings and females in the afternoons. Subjects included arithmetic reading, writing, general knowledge, physical training and singing.

169. Electro-convulsive therapy was used in several cases with satisfactory results; otherwise no major technical procedures were carried out owing to the lack of specialist staff.

170. Statistical details relating to the medical work carried out at Dodoma Mental Hospital are set out in Appendix II.

PART IV.—ANCILLARY AND RELATED SERVICES

XVI.—LABORATORY SERVICES

171. From May to the end of the year the laboratory services were deprived of their Senior Pathologist who was transferred to Medical Headquarters for administrative duties. This, together with the absence for part of the time of one of the pathologists was a serious hindrance to the work of the Central Laboratory in Dar es Salaam. As a result the systematic training of laboratory assistant students was impossible during the greater part of the year. For the same reason, visits by the Senior Pathologist to other parts of the territory could not be made.

172. The shortage of experienced laboratory technicians in the Central laboratory prevented a satisfactory maintenance service of microscopes in Government hospital laboratories throughout the Territory. This resulted in a large accumulation of defective instruments in need of attention.

173. Under the direction of a pathologist there was continued improvement in the laboratory facilities provided by the Government Laboratory at Tanga

174. In Appendix III (Tables (i) and (ii)) will be found a summary of the work carried out at the Central Laboratory, Dar es Salaam and at district hospital laboratories.

175. Laboratory work was also undertaken at all other district hospitals and at many rural dispensaries.

176. It should be observed that the number of specimens examined bears no relation to the usefulness of a laboratory service. Only where the number of specimens examined is in keeping with the capacity of the technical staff are the results likely to be of real value to the clinician.

177. Generally speaking, all laboratories in the territory are over used, the result being that much of the work is inaccurate and misleading.

XVII.—MEDICAL TRAINING

178. During 1950, an increase in the accommodation available for student nurses resulted from the purchase by Government in 1949 of the building now known as the Mweka Training Centre, near Moshi. There is residential accommodation for thirty-eight girls and teaching accommodation for a larger number. Male students are boarded at a neighbouring mission and attend the Centre daily for meals and instruction. Despite the defects of the Centre, of which its remoteness is the greatest, its acquisition will enable the numbers of nurses in training to be increased. This will tide over the gap until better hostel and training accommodation can be obtained.

179. Nursing training is conducted on the "block" system. One "block" of theoretical instruction lasting two or three months is given to students in each year of training. Between the blocks students are posted to hospitals for practical work.

180. Every effort is made to obtain candidates with the requisite educational background, but this is not possible in the case of all girl entrants and an appreciable proportion have to be accepted who have not attained the desired standard.

181. The training of midwives is undertaken at the Maternity and Child Health Centre, Dar es Salaam, where there is accommodation at a nearby hostel for ten students.

182. The Medical Training Centre at Dar es Salaam provides for the training of medical laboratory, pharmaceutical and hospital stewards' assistants. The centre is in charge of a medical officer who devotes his whole time to training. The officers in charge of the pathological and pharmaceutical services organise courses of instruction for students training for the above-mentioned categories. The assistants' courses are of three years duration, entry being restricted to candidates who have passed the Territorial Standard X examination.

183. Medical aids for employment in rural medical centres (dispensaries) undergo a two year course of instruction in the Medical Training Centre, Mwanza. Students are accepted from Standard VIII, but candidates from Standard X are preferred if available. This course, which is more elementary than that for medical assistants, includes instruction in elementary rural hygiene and is specifically designed to fit them for rural medical duties. Special emphasis is placed on practical instruction and the treatment of common ailments. It is envisaged that the course will eventually merge with that for medical assistants, but financial considerations will preclude the achievement of this aim for some years.

184. The training of African Health Inspectors for the Certificate of the Royal Sanitary Institute has not yet been started in the territory although plans for a Health Inspectors' Training Centre have recently been completed and form part of the combined training scheme referred to in paragraph 186 below.

185. A senior course in mosquito control was held at Muheza under the direction of the Interterritorial Malariologist. In addition a varying number of students were given elementary training in mosquito control throughout the year at Muheza with a view to their employment in the service of Government or estate employers.

186. A Committee, comprising Government and non-Government members was set up in December to report and advise on the training of African nursing staff to approved standards in Government and non-Government institutions. Another working party was appointed to advise on the training of medical assistants, African health inspectors and other auxiliary medical workers. The combined plan will provide for a major extension of Government training facilities, not only to provide for existing staff shortages, but to keep pace with the projected expansion of departmental activities laid down in the Development Plan of the Department.

187. The training of nurses, midwives and medical assistants is undertaken at a number of approved Missionary Training Centres which are in receipt of hospital and special training grants from Government. A sum of £2,370 was paid to these Missions in 1950 as training grants-in-aid. The products of all these centres are at present absorbed into the mission medical services.

TABLE XVI

Examination Results-Qualifying Examinations

				<i>Government</i>				<i>Mission</i>			
				<i>Sat</i>		<i>Passed</i>		<i>Sat</i>		<i>Passed</i>	
Medical assistants	...	...	...	11	...	11	...	9	...	2	
Laboratory assistants	...	...	...	3	...	3	...	—	...	—	
Pharmaceutical assistants	...	...	...	2	...	2	...	—	...	—	
Hospital Stewards' assistants	...	...	...	—	...	—	...	—	...	—
Nurses	...	...	...	22	...	17	...	13	...	11	
Midwives	...	...	...	4	...	3	...	13	...	13	
Rural medical aids	...	...	...	5	...	5	...	—	...	—	

XVIII.—MISSION MEDICAL SERVICES

188. In the following table (Table XVII) is shown the number of hospitals (including maternity centres), beds and patients treated at Mission hospitals for 1949 and 1950 in respect of which Government grants-in-aid are paid. In addition, the Missions maintain a number of other medical centres which do not qualify for grants. It should be pointed out that the accuracy of many of the sickness returns is doubtful and they should, therefore, only be accepted as approximate.

TABLE XVII

					1949		1950
Hospitals	...	...	...	...	22	...	23
Beds	...	...	...	...	3,522	...	3,952
In-patients treated	...	...	...	...	59,958	...	68,805
Out-patients treated	...	...	...	...	836,075	...	1,199,397
Confinements attended...	...	...	...	...	7,163	...	10,102

189. Grants-in-aid are paid for hospital maintenance and also for training. The hospital grants are assessed on the number of qualified medical and nursing staff employed, including certificated African medical and nursing auxiliary staff. Training grants are assessed on a sum payable in the year following qualification in respect of each student who has successfully passed the Government qualifying examination. The training grants are as follows :—

For each medical assistant	...	...	...	...	£120
For each nurse	...	...	...	...	90
For each midwife	...	...	...	...	60
For each nurse obtaining a midwifery qualification, an extra	...	...	...	...	30

190. Grants paid out and the numbers of European qualified staff employed at missions in receipt of hospital grants for the years 1949 and 1950 are shown in Table XVIII.

TABLE XVIII

					1949		1950
Doctors	...	...	...	...	29	...	33
Nurses	...	...	...	...	125	...	143
Hospital grants paid...	...	...	...	...	£37,258	...	£41,103
Training grants paid...	...	...	...	...	£1,620	...	£2,370

191. The method of assessment of hospital grants-in-aid is not regarded as entirely satisfactory and careful consideration is at present being given to a system of payment which will be related, not only to the qualified staff employed, but to other relevant factors.

192. Training is undertaken at the following centres :—

Medical Assistants :

Minaki	...	...	...	Eastern Province	...	...	U.M.C.A.
Bumbuli	...	...	...	Tanga Province	...	...	Lutheran

Nurses :

Mvumi	...	...	...	Central Province	...	...	Church Missionary Society
Magila	...	...	...	Tanga Province	...	...	U.M.C.A.
Lulindi	...	...	...	Southern Province	...	...	U.M.C.A.
Minaki	...	...	...	Eastern Province	...	...	U.M.C.A.
Sumve	...	...	...	Lake Province	...	...	White Fathers

Missionaries :

Mvumi	...	...	Central Province	...	...	Church Missionary Society.
Magila	...	...	Tanga Province	...	...	U.M.C.A.
Sumve	...	...	Lake Province	...	...	White Fathers
Ndanda	...	...	Southern Province	...	...	Benedictine

193. There was a fair amount of building activity during the year. The Capuchin Mission at Sofi in the Eastern Province completed a small new hospital while the Seventh Day Adventist Mission had nearly finished a new hospital of about fifty beds at Manyovu in the Western Province. The U.M.C.A. Mission are proceeding with the rebuilding of their hospital at Masasi in the Southern Province and the Benedictine Mission is building a new hospital at Mnero in the Southern Province. In addition, a number of new wards were being built at various hospitals in the territory.

XIX.—RESEARCH

194. Reports have been published on the work carried out during 1950 by the East African High Commission Medical Survey and Filariasis Research Units, of which Col. W. Laurie, D.S.O., is Director (Annual Report of the East African Medical Survey Unit, 1950; Annual Report of Filariasis Research Unit, 1950).

195. Field surveys of the incidence of filariasis were carried out in a number of selected areas in the Lake and Western Provinces. Col. Laurie points out in his Annual Report that lack of knowledge as to the causes of filariasis infection due to *W. bancrofti* is greatly hampering investigations into treatment and prevention. He suggests that the incidence of serious late complications such as elephantiasis is closely related to the intensity of individual infections and not necessarily to the incidence of people showing *Mf. bancrofti* in their blood stream. Results so far obtained suggest that disease caused by filariasis is a serious problem in only a few areas of the territory.

196. With regard to treatment, work on heterazán was a continuation of that started in 1948. Findings in 1950 confirm that heavy short dosage treatment gives results comparable with those obtained by the commonly employed small dosage, long continued method. It is not yet established whether heterazán is of value in the treatment of bancroftial elephantiasis, but there is some evidence that it may be of use in the early stages of this complication. The drug is undoubtedly efficacious in the treatment of filarial hydrocele and elephantiasis of the scrotum in their early stages. Whether adult *W. bancrofti* is killed by heterazán is not yet known.

197. A start was also made on the therapeutic value of a pentavalent antimony compound known as "protostib". It was found that this drug had little direct effect on the microfilaria of *W. bancrofti* in vivo; it acts on the adult worm being directly opposite in this respect to heterazán which appears to act mainly on the microfilaria. In two out of four patients treated with protostib there is good evidence to suggest that the drug has sterilized or

killed the adult worm. Until more is known about the mechanism of such conditions as filarial elephantiasis and hydrocele, it is not possible to state whether heterazan and protostib are of any value in the treatment of these conditions.

198. Owing to lack of staff and suitable laboratory facilities work of the Medical Survey Unit during 1950 was seriously limited. Laboratory activities were directed mainly to standardising methods of investigation, these methods being subsequently tested on patients admitted to Mwanza hospital.

199.—Field medical surveys were instituted in the latter part of the year as soon as medical staff became available. A start was made on an investigation of the population, numbering approximately 16,000 persons, living on Ukara Island, Lake Victoria. Preliminary results of the survey are given in the annual report of the Director, but owing to the short period during which the investigation was in progress in 1950, this must be recorded as tentative and subject to subsequent revision in the light of fuller information.

200.—Following discussions between the Malariologist and the Directors of the East African Filariasis and Medical Survey Units and the Colonial Insecticide Research Unit, a series of combined programmes of investigation were arranged during 1950. As an experiment, a scheme was drawn up for the aerial spraying, using D.D.T., of certain swampy areas round Dar es Salaam which are at present the source of extensive breeding and which cannot effectively be controlled by ground measures alone. The application of residual insecticides directed against anopheles adults over a selected area in the territory where malaria occurs in epidemic form, was also arranged by the Malariologist. A trial of paludrine for the protection of an African population living in a hyperendemic area was also in progress by the end of the year.

XX.—MEDICAL SUPPLIES

201. During the past year the supply position was, in the main, satisfactory with regard to drugs. On the other hand, instruments and equipment have not as yet come forward with the speed and in the quantities required. This is largely owing to manufacturing delays which are sometimes considerable.

202. Supplies of all forms of dressings were satisfactory, though as a result of marked rises in the cost of raw materials, dressings are becoming extremely expensive. Prices for drugs remain reasonable, but the cost of instruments and equipment continues to soar, making estimates of expenditure on fresh supplies a difficult problem indeed.

203. It was possible during the year to continue the policy of restoring to more reasonable proportions the reserve stock in the Medical Stores which had to be reduced to dangerously low proportions during the war years and the immediately succeeding period.

204. The following table (Table XIX) shows the value of goods received and issued during the years 1948-1950 :—

TABLE XIX

			<i>Received</i>		<i>Issued</i>	<i>Value of stock on hand at the end of the year</i>	
1948...	...	...	£103,386	...	£100,362	...	£68,753
1949...	...	...	£138,960	...	£116,742	...	£90,972
1950...	...	...	£164,729	...	£138,308	...	£117,393

205. Work carried out by the Medical Stores organisation continues to increase as is indicated by the following table (Table XX) showing the packages despatched from Medical Stores and the issue vouchers dealt with in the period 1948-1950 :—

TABLE XX

			<i>Packages Despatched</i>		<i>Issue Vouchers</i>
1948	...	...	7,734	...	6,277
1949	...	...	9,558	...	7,326
1950	...	...	10,786	...	7,780

APPENDIX I

SMALLPOX 1946-1950

Provincial Incidence

				1946		1947		1948		1949		1950
<i>Central :</i>												
Cases	...	...	...	1,725	...	489	...	364	...	22	...	5
Deaths	...	...	...	285	...	73	...	58	...	—	...	—
Mortality per cent	...	...	...	16.5	...	14.9	...	15.9	...	—	...	—
<i>Eastern :</i>												
Cases	...	...	...	440	...	42	...	24	...	—	...	90
Deaths	...	...	...	39	...	8	...	1	...	—	...	11
Mortality per cent	...	...	...	8.8	...	19.0	...	4.2	...	—	...	12.2
<i>Lake :</i>												
Cases	...	...	...	1,987	...	921	...	162	...	82	...	56
Deaths	...	...	...	497	...	220	...	15	...	9	...	16
Mortality per cent	...	...	...	25.1	...	23.8	...	9.3	...	10.97	...	28.6
<i>Western :</i>												
Cases	...	...	...	4,055	...	386	...	72	...	49	...	—
Deaths	...	...	...	477	...	30	...	15	...	2	...	—
Mortality per cent	...	...	...	11.7	...	7.8	...	20.3	...	4.08	...	—
<i>Southern :</i>												
Cases	...	...	...	2,546	...	237	...	399	...	612	...	6,158
Deaths	...	...	...	160	...	30	...	84	...	123	...	1,309
Mortality per cent	...	...	...	6.28	...	12.7	...	21.1	...	20.1	...	21.35 30
<i>Southern Highlands :</i>												
Cases	...	...	...	1,692	...	832	...	111	...	155	...	47
Deaths	...	...	...	426	...	243	...	28	...	8	...	7
Mortality per cent	...	...	...	25.17	...	29.2	...	25.2	...	5.16	...	14.9
<i>Tanga :</i>												
Cases	...	...	...	97	...	51	...	3	...	3	...	19
Deaths	...	...	...	18	...	10	...	—	...	1	...	1
Mortality per cent	...	...	...	18.5	...	19.6	...	—	...	33.3	...	5.30
<i>Northern :</i>												
Cases	...	...	...	129	...	22	...	69	...	122	...	15
Deaths	...	...	...	33	...	2	...	8	...	24	...	1
Mortality per cent	...	...	...	25.5	...	10.0	...	11.6	...	19.67	...	6.66

APPENDIX II

MENTAL HOSPITAL, DODOMA

<i>Numbers</i>				<i>Male</i>		<i>Female</i>		<i>Total</i>
Remaining in Hospital on 31/12/49...	...	...	...	174	...	80	...	254
Total Admissions	...	...	...	152	...	60	...	212
Admitted under Certificate	...	...	...	115	...	43	...	158
Admitted under Observation	...	...	...	34	...	12	...	46
Admitted under Voluntary	...	...	...	2	...	5	...	7
Readmission of an Escapee	...	...	...	1	...	—	...	1
Discharged	...	...	...	69	...	13	...	82
Discharged under Observation	...	...	...	7	...	5	...	12
Discharged under Voluntary	...	...	...	2	...	2	...	4
Discharged No Insanity	...	...	...	1	...	1	...	2
Transferred to Lutindi	...	...	...	28	...	10	...	38
Transferred to Broadmoor	...	...	...	71	...	—	...	71
Escaped	...	...	...	2	...	—	...	2
Died	...	...	...	23	...	14	...	37
Remaining in Hospital on 31/12/50...	...	...	...	123	...	95	...	218

Comparison of turnover with that of previous years

			1943	1944	1945	1946	1947	1948	1949	1950
Admissions	...	...	90	59	130	136	137	184	196	212
Discharges	...	...	64	48	73	88	102	135	119	100
Deaths	...	...	11	9	8	16	14	10	38	37

Classification of Patients on 31/12/50

Male European	...	...	...	2	Female European	...	...	...	6
Male Asian	...	...	...	8	Female Asian	...	...	...	6
Male African	...	...	...	113	Female African	...	...	...	83
Total	...	...	123		Total	...	...	...	95

Admissions 212

29 Criminal Lunatics were admitted during the year.
 13 Female Criminal Lunatics in residence on 31/12/50.
 Admissions classified as follows :—

Acute melancholia	...	...	22	Cerebral syphilis	...	...	...	4
Involitional melancholia	...	...	1	Delusional	...	...	...	13
Recurrent melancholia	...	...	2	General paralysis	...	...	...	7
Mania depressive psychosis	...	...	16	Epilepsy	...	...	...	23
Acute mania	...	...	20	Puerperal Insanity	...	...	...	2
Simple mania	...	...	6	Mental deficiency	...	...	...	6
Recurrent mania	...	...	14	Toxic psychosis	...	...	...	3
Religious mania...	...	...	2	Hysteria	...	...	...	1
Katatonic schizophrenia	...	...	17	No insanity	...	...	...	2
Simple schizophrenia	...	...	23	Senile Dementia	...	...	...	5
Dementia paranoides	...	...	9	Psychopath	...	...	...	4
Confusional	...	...	10					

Discharges 200

Patients discharged improved	...	...	...	20
Patients discharged cured	...	...	...	80
1. Voluntary patients	...	...	...	4
2. Observation patients	...	...	...	12
3. Criminals sent for trial or discharged	...	...	...	10
4. No insanity	...	...	...	2
5. Patients under Certificate	...	...	...	72

Transferred

patients were transferred to Lutindi Mental Hospital on 12/1/50.
 Male Criminal Lunatics were transferred to Broadmoor Institution on 29/12/50.

Deaths 37

Cerebral haemorrhage	2	Arterio Sclerosis, Senility	1
Senile Dementia	1	Delusional Insanity, Inanition	1
General Paralysis	3	Cardio-renal disease	1
Recurrent Mania	1	Generalised miliary Tuberculosis	1
Acute Gastro Enteritis	1	Syphilitic Cardio-vascular degeneration	2
Sub-acute Nephritis	1	Pneumonia and respiratory failure	1
Chronic Nephritis	2	Malaria-bilharziasis-heart failure	1
Cerebral Malaria	2	Organic syphilis and exhaustion... ..	...
Lobar Pneumonia and Dysentery	1	Pulmonary Tuberculosis ... ..	...
Peritonitis	1	Haemoptysis ... ..	...
Congestive Cardiac Failure	3	Bronchitis and old age ... ..	...
Epilepsy, emaciation	1		

Criminal Cases

There were 29 admissions. 10 Criminal Lunatics recovered and were discharged or sent to stand their trial. There were 71 male Criminal Lunatics transferred to Broadmoor Institution on 29/12/50.

Europeans and Asians treated during the year

	Europeans	Asians
In-Patients	17	32

Shambas

Owing to the small amount of rainfall during the past years it was decided that the amount of labour required did not justify the preparation of ground for staple crops and more attention was given to vegetable gardens.

Accommodation

162 male class Africans

African sick wards
Asian Accommodation

72 female class Africans

Male 8 Female
Male 10 Female

European Accommodation

European Class A accommodation 6 European Class B accommodation
European Class B was used as Sanatorium for Africans as well as two European bungalows for Africans owing to increased admissions.

Cost of living compared with previous years (food only) including Europeans, Asians and Africans

Year	Expenditure	Daily average No. of Patients
	Shs. Cts.	
1941	9,793 56	138
1942	14,631 00	161
1943	19,077 38	159
1944	16,962 96	137
1945	17,316 78	149
1946	20,353 73	168.75
1947	19,986 31	175.58
1948	23,998 32	195.92
1949	27,991 22	229.01
1950	39,590 76	265.32

Occupational therapy and recreation

Scholastic instruction for selected patients continues under Mr. Gideon Mwela. Males attend the school in the mornings and females in the afternoons.

Curriculum

Male and female	Arithmetic, reading, writing, general knowledge, physical training, singing.
Male	Football, band and gardening.
Female	Ball games.

Owing to the small number of patients involved and the various languages, difficulty was experienced in providing sufficient amusement and encouragement for the European patients although the piano and gramophone were greatly in demand. The Dodoma Mental Welfare Association continued to supply books, music, games, etc.

General Remarks

The admission rate of 212 in 1950 was the highest since 1943 and in spite of the good number of patients discharged, it was not possible to avoid overcrowding, as in 1949 accommodation intended for Europeans has been used for Africans.

Two new dormitories (one male and one female) have been opened during 1950. The position is still very acute as the criminal leper prison is to be handed back to the prisons immediately.

The rather high death rate was mainly due to the general condition of many patients on admission suffering from malnutrition and vitamin deficiency. Pellagra was fairly common in new admissions.

Due to shortage of African staff it was necessary to run the hospital on the two shift system

There was water shortage during most of the year.

No prefrontal leucotomies have been performed and no insulin coma because of the lack of skilled staff on night duty. Electro-convulsive therapy was largely used in suitable cases with satisfactory results.

APPENDIX III

STATISTICAL SUMMARY OF WORK CARRIED OUT AT THE CENTRAL LABORATORY, DAR ES SALAAM AND AT DISTRICT HOSPITALS

(i) Central Laboratory, Dar es Salaam

(a) MICROSCOPY AND QUALITATIVE BIOCHEMISTRY

Urines :

Total number of specimens examined	1,305
Albumen present	479
Sugar present	73
Acetone bodies present	22
Casts present	50
R. B. C's present	147
Pus present	793
Bile pigment present	44
Bile salts present	9
<i>Schistosoma haematobium</i> present	28

Faeces :

Total number of specimens examined	1,757
Occult blood present	37
R. B. C's present	10
Pus present	205
Ascaris ova present	31
Oxyuris ova present	3
Hookworm ova present	101
Strongyloides larvae present	22
Taenia segments present	4
<i>Trichuris trichura</i> present	14
<i>E. histolytica</i> cysts present	3
<i>Giardia lamblia</i> vegetative forms present	25

Blood films :

Total number of specimens examined	4,535
Malarial parasites present	577
<i>Spirochaeta duttoni</i>	6
Trypanosomes	3
<i>Wucheria bancrofti</i> microfilaria	3

C. S. F. :

Total number of specimens examined	12
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Sputum :

Total number of specimens examined	216
Tubercle bacilli present	34

Urethral and Vaginal Smears :

Total number of specimens examined	187
Gonococci present	60

Dark ground examination for *T. pallidum* :

Total number of specimens examined	42
<i>Treponema pallidum</i> present	11

(b) HAEMATOLOGY

Haemoglobin estimations	842
Red cell counts	211
White cell counts	361
White cell differential counts	375
Reticulocyte counts	10
Sedimentation rates	119
Blood grouping	539
Coagulation times	2

Bleeding times	1
Rh. factors	176
Prothrombin times	6
Fragility Tests	1
C.V.	26
M.C.V.	26
M.C.H.C.	26

(c) SEROLOGY

Kahn Tests :

Total number of tests performed	3,485
Kahn positive	1,185
Kahn negative	2,014
Kahn doubtful	286

Widals :

Total number of tests performed	398
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Paul-Bunnell Reactions :

Total number of tests performed	5
Number showing significant titre	1

(d) BACTERIOLOGY

Blood Cultures :

Total number examined	275
<i>Salmonella typhi</i> isolated from	22
An organism of salmonella genus isolated from	3
<i>Ps. pyocyaneus</i> isolated from	7

<i>Streptococcus faecalis</i> isolated from	4
<i>Bact. faecalis alkaligenes</i> (including one fatal case of <i>B. faecalis alkaligenes</i> infective endocarditis which is being published)	18

APPENDIX III (contd.)

(d) BACTERIOLOGY (contd.)

Faeces :

Total number examined ...	1,003
<i>Salmonella typhi</i> isolated from ...	19
Organisms of the salmonella genus	41
<i>Shigella flexneri</i> ...	26
<i>Shigella sonnei</i> isolated from ...	22
<i>Shigella schmitzi</i> isolated from ...	2
<i>Shigella boyd</i> isolated from ...	2

Urines :

Total number examined ...	187
An organism of the Salmonella genus isolated from ...	1
<i>Bact. coli</i> isolated from ...	47
<i>Staphylococcus pyogenes</i> isolated from ...	2
<i>Streptococcus faecalis</i> isolated from ...	8
<i>Ps. pyocyaneus</i> isolated from ...	9
<i>Streptococcus viridans</i> isolated from ...	3
<i>Non-haemolytic streptococci</i> isolated from ...	6
<i>Bact. faecalis alkaligenes</i> isolated from ...	9

Swabs—Throat and Nose :

Total number examined ...	112
<i>C. diphtheria</i> isolated from ...	3
(a) Mitis strain virulent ...	1
(b) Mitis strain avirulent ...	2
<i>Streptococcus pyogenes</i> isolated from ...	16
<i>Staphylococcus pyogenes</i> isolated from ...	3
Vincent angina by direct examination ...	2

Swabs—Skin Ulcers :

Total number examined ...	53
<i>B. proteus</i> isolated from ...	5
<i>Streptococcus pyogenes</i> isolated from ...	10
<i>Staphylococcus pyogenes</i> isolated from ...	1
<i>Ps. pyocyaneus</i> isolated from ...	2
<i>Bact. coli</i> ...	9
<i>B. friedlander</i> isolated from ...	1
<i>Streptococcus faecalis</i> isolated from ...	1
<i>Streptococcus viridans</i> isolated from ...	2
<i>Streptococcus pneumoniae</i> isolated from ...	1
<i>Non-haemolytic streptococci</i> ...	2
<i>C. diphtheria</i> isolated from (mitis strain avirulent 5) ...	6
Vincent's angina by direct examination ...	11

Swab—Ear :

Total number examined ...	5
<i>Staphylococcus pyogenes</i> isolated from ...	1
<i>Ps. Pyocyaneus</i> isolated from ...	1
<i>Bact. faecalis alkaligenes</i> ...	1

Swabs—Eye :

Total number examined ...	46
<i>Ps. pyocyaneus</i> isolated from ...	1
<i>B. friedlander</i> ...	1
<i>Staphylococcus pyogenes</i> ...	2
<i>Streptococcus viridans</i> ...	1
<i>Morax-Axenfeld bacillus</i> ...	1

Swabs—Vaginal, Cervical and Urethral :

Total number examined ...	102
<i>Streptococcus pyogenes</i> isolated from ...	6
<i>Bact. coli</i> isolated from ...	17
<i>Ps. pyocyaneus</i> isolated from ...	3
<i>Streptococcus faecalis</i> isolated from ...	3
<i>Streptococcus viridans</i> isolated from ...	18
<i>Non-haemolytic streptococci</i> isolated from ...	4
<i>C. albicans</i> isolated from ...	1

Cerebral Spinal Fluids :

Total number examined ...	82
<i>Streptococcus pneumoniae</i> isolated from ...	5
<i>Streptococcus pyogenes</i> isolated from ...	1
An organism of the salmonella genus ...	1

Pus :

Total number examined ...	41
<i>Staphylococcus pyogenes</i> isolated from ...	4
<i>Streptococcus pyogenes</i> isolated from ...	1
<i>Non-haemolytic streptococci</i> isolated from ...	5
<i>Bact. coli</i> isolated from ...	6
<i>Bact. faecalis alkaligenes</i> ...	4
<i>Streptococcus viridans</i> isolated from ...	2
Tubercle bacilli found by direct examination ...	3

Pleural-Fluids :

Total number examined ...	33
<i>Streptococcus pyogenes</i> isolated from ...	1
<i>Streptococcus pneumoniae</i> isolated from ...	1
<i>Bact. faecalis alkaligenes</i> isolated from ...	2
<i>Bact. coli</i> isolated from ...	1
<i>Streptococcus viridans</i> isolated from ...	1
Tubercle bacilli found by direct examination ...	2

Joint Fluids :

Total number examined ...	13
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Other Body Fluids :

Total number examined ...	9
<i>Streptococcus pneumoniae</i> isolated from ...	2
(from hydrocele fluid) ...	1

APPENDIX III (contd.)

(d) BACTERIOLOGY (contd.)

Sputa :

Total number examined	7	Swabs from bowel after post-mortem, total number examined	1
<i>Streptococcus pyogenes</i> isolated from	1	Swabs from base of brain after postmortem, total number examined	1
<i>Streptococcus pneumoniae</i> isolated from	1	An organism of salmonella genus isolated from	1
<i>B. friedlanderi</i> isolated from	1	Breast milk, total examined	1
<i>Streptococcus viridans</i>	1	Cotton wool from Minaki for <i>Cl. Tetani</i> , total number examined	1

Miscellaneous :

Swabs from spleen after post-mortem, total number examined	4	Cough plates for <i>H. pertussis</i> , total number examined	8
<i>Salmonella typhi</i> isolated from	1		

(e) MORBID HISTOLOGY

During the year 355 biopsies were examined histologically. The findings may be broadly classified as follows :—

Tumours :

Benign epithelial tumours	21
Carcinoma, primary	56
Carcinoma, secondary	3
Benign connective tumours	26
Sarcomata	16
Melanomata	5
Endotheliomata	7
Leukaemias	1

Infections :

Schistosomiasis	5
Malaria (blackwater)	1
Tuberculous	17
Syphillis	2
Hodgkins	3
Mycotic	2
Other granulomas	17
Typhoid	2
Other acute infections	21
<i>Circulatory Degenerations</i>	6
<i>Infectious Degenerations</i>	25
<i>Miscellaneous</i>	119

(f) PUBLIC HEALTH BACTERIOLOGY

Water Samples :

Total examined in Dar es Salaam	592	Soda water from Lindi	4
<i>B. Coli</i> of faecal type isolated from	20	<i>B. Coli</i> of faecal type isolated	0
Upcountry total examined	96	Ice cream from Dar es Salaam	1
<i>B. Coli</i> of faecal type isolated from	58	<i>B. Coli</i> of faecal type isolated	0

(g) MEDICO-LEGAL BIOLOGY

Total number of specimens examined	84	Collections of bones for identification	5
For human blood stains	64	For blood grouping	5
For seminal stains	8	For identification of hairs	2

(h) MEDICO-LEGAL POSTMORTEMS

Total number of Postmortems performed	89	Pneumonia	5
Causes of death as follows :—		Drowning	4
Multiple injuries	19	Stab wound	4
Shock and haemorrhage	18	Acute typhoid fever	4
Fracture of skull	13	Burning by fire	2
Heart failure	8	Poisoning	2
Strangulation by hanging	5	Disintegration	2
		Gunshot	2

(ii) Laboratories at principal hospital—total examinations

Dar es Salaam Hospitals Group	37,200	Morogoro	16,060
Tanga	35,175	Bukoba	15,104
Tabora	28,215	Dodoma	12,471
Mwanza	26,984	Kilosa	6,308
Moshi	24,015	Kigoma	2,665
Musoma	19,477		

APPENDIX IV
ESTABLISHMENT AND STRENGTH

Posts	ESTABLISHMENT			Strength 31st Dec. 1950			Remarks
	Senior Service	Junior Service	Sub-ordinate Service	Senior Service	Junior Service	Sub-ordinate Service	
<i>I—Headquarters and Administration</i>							
1. Director of Medical Services, Deputy Director and Regional Assistant Directors	6	—	—	6	—	—	
2. Secretary	1	—	—	1	—	—	
3. Accountant	1	—	—	1	—	—	
4. Matron-in-Chief	1	—	—	1	—	—	
5. Chief Office Superintendent ...	1	—	—	1	—	—	
6. Woman Administrative Assistant	4	—	—	4	—	—	
7. Stenographers, Librarian, Office Assistants, Clerks and Telephone Operators	3	90	49	3	62	73	
<i>II—Stores and Pharmaceutical Services</i>							
1. Pharmacist and Assistant Pharmacists	6	—	—	5	—	—	
2. Stores Accountant, Stores Assistants and Head Packer ...	1	10	1	1	5	—	
<i>III—Hospital and Health Services</i>							
1. Specialists, Senior Medical Officers, Medical Officers of Health, Women and Temporary Medical Officers	73	—	—	57	—	—	
2. Matrons, Senior Nursing Sisters, Nursing Sisters, Sister Tutors and Male Nurses	83	—	—	50	—	—	
3. Physiotherapists and Physiotherapists Assistants	3	—	4	3	—	—	
4. Senior Assistant Surgeons, Assistant Surgeons, Senior Sub-Assistant Surgeons, Sub-Assistant Surgeons and African Assistant Medical Officers	—	74	—	—	68	—	
5. Assistant Nurses, Nursing Auxiliaries	—	93	—	—	61	—	
6. Woman Nutrition Officer and Nutrition Orderlies	1	—	3	—	—	—	
7. Hospital Assistants	—	119	—	—	107	—	
8. Senior Compounders, Compounders and Pharmaceutical Assistants	—	20	—	—	18	—	
9. Hospital Administration: Superintendents, Sister Housekeepers, Stewards, Secretary, Motor Drivers and Artisans	10	28	17	8	16	19	
10. Chief Health Inspector, Senior Health Inspectors, Health Inspectors and Assistant Health Inspectors	35	2	—	24	2	—	
11. Senior Health Visitors and Health Visitors	18	—	—	16	—	—	
12. Sanitary Inspectors	—	100	36	—	65	38	
<i>IV—Specialist Services</i>							
<i>A. Dental.</i>							
1. Senior Dental Surgeon and Dental Surgeons	5	—	—	4	—	—	
2. Dental Mechanics and Dental Assistants	3	7	—	2	—	—	
3. Dental Auxiliaries and Orderlies	—	2	2	—	1	—	

APPENDIX IV (contd.)
ESTABLISHMENT AND STRENGTH

Posts	ESTABLISHMENT			Strength 31st Dec. 1950			Remarks
	Senior Service	Junior Service	Sub-ordinate Service	Senior Service	Junior Service	Sub-ordinate Service	
<i>B. Leprosy.</i>							
1. Specialist (Inter-Territorial) ...	1	—	—	1	—	—	
2. Medical Officer (Special duty) ...	1	—	—	1	—	—	
<i>C. Malaria.</i>							
1. Malariologist (Inter-Territorial)...	1	—	—	1	—	—	
2. Medical Officer (Special Duty) ...	1	—	—	—	—	—	
3. Entomologist	1	—	—	1	—	—	
4. Malaria Field Assistants, Supervisors Anti Mosquito Measures and Malaria Assistants ...	3	21	8	3	10	21	
5. Laboratory Assistants	—	1	1	—	2	1	
6. Draughtsmen	—	1	—	—	1	—	
<i>D. Mental.</i>							
1. Specialist	1	—	—	1	—	—	
2. Chief Male Mental Nurse, Male and Female Mental Nurse and Male and Female Nurses ...	8	4	—	7	1	—	
3. Handicraft Instructor	—	1	—	—	1	—	
<i>E. Tuberculosis.</i>							
1. Specialist	1	—	—	1	—	—	
2. Industrial Instructor	1	—	—	1	—	—	
3. Nursing Sisters (Special duty) ...	1	—	—	1	—	—	
4. Assistant Surgeon (Supernumerary) ...	—	1	—	—	1	—	
<i>F. Sleeping Sickness.</i>							
1. Specialist	1	—	—	1	—	—	
<i>G. Laboratory Services.</i>							
1. Senior Pathologist, Pathologist and Biochemist	3	—	—	3	—	—	
2. Laboratory Superintendents and Laboratory Assistants ...	3	27	—	2	25	—	
3. Laboratory Auxiliaries and Microscopists	—	10	30	—	—	39	
<i>H. X-Ray.</i>							
1. Radiologist	1	—	—	1	—	—	
2. Radiological Technician ...	1	—	—	—	—	—	
3. Radiographer and Radiographic Assistant	1	1	—	1	1	—	
<i>J. Medical Education</i>							
1. Medical Officer (Special Duty)...	1	—	—	1	—	—	
2. Medical Instructor	1	—	—	1	—	—	

MEDICAL PRACTITIONERS

Resident and Practising at 31st December, 1950

	Government Service				Non-Government			
	European	Asian	African	R. or L.	European	Asian	R. or L.	Private Practice Mission or Industry
CENTRAL MEDICAL REGION :								
Central Province	2	5	—	3 R 4 L	15	1	15 R 1 L	P.2, M.4 I.10
Southern Highlands Province ...	5	3	—	6 R 2 L	9	2	8 R 3 L	P.7, M.2 I.2
EASTERN MEDICAL REGION :								
Eastern Province	3	6	—	3 R 6 L	4	2	4 R 2 L	P.2, M.1, I.3
Southern Province	3	3	—	3 R 3 L	14	—	14 R	M.6, I.8
NORTHERN MEDICAL REGION :								
Northern Province	10	7	—	14 R 3 L	7	3	9 R 1 L	P.7, M.2, I.1
Tanga Province	6	9	1	10 R 6 L	17	3	18 R 2 L	P.8, M.6, I.6
WESTERN MEDICAL REGION :								
Lake Province	6	8	3	6 R 11 L	15	2	17 R	P.3, M.8, I.2
Western Province	5	6	2	7 R 6 L	6	1	7 R	Research 4 P.1, M.2, I.4
DAR ES SALAAM	15	5	3	17 R 6 L	11	23	33 R 1 L	P.30 I.4
Total	55	52	9	69 R 47 L	98	37	125 R 10 L	4 Research P.60, M.31, I.40.

I = Employed in industry

R = Registered

L = Licensed

P = Private Practice

M = Mission

APPENDIX VI
DENTAL PRACTITIONERS
Provincial Table

PROVINCE	Government			Non-Government		
	European	Asian	R. or L.	European	Asian	R. or L. or Nil
Eastern Province, Dar es Salaam	—	—	—	—	—	—
Southern Province	—	—	—	1	—	1.1
Southern Highlands Province	—	—	—	—	—	—
Central Province	—	—	—	1	—	1.1
Tanga Province	1	—	R	3	—	P.2, M.1
Northern Province	—	—	—	2	—	P.2
Lake Province	—	—	—	—	—	—
Western Province	—	—	—	1	—	P.1
Dar es Salaam	3	—	R	2	—	P.2
Total	4	—	4R	10	—	P7, L.3

R = Registered. L = Licenced. M = Mission.
P.P. = Private Practice. R.C. = Refugee Camp. I = Employed in Industry.

APPENDIX VII

NUMBER OF HOSPITAL BEDS AS AT 31ST DECEMBER, 1950

Government Hospitals and other Medical Centres, including Tuberculosis and Mental Hospitals and Maternity and Child Welfare Clinics

Medical Region	European (a)	Asian	African	Total
CENTRAL REGION :				
Central Province	—	10	477	487
Southern Highlands Province ...	23	12	312	347
EASTERN REGION :				
Eastern Province	15	—	450	465
Southern Province	5	6	240	251
NORTHERN REGION :				
Northern Province	22	30	681	733
Tanga Province	20	18	722	760
WESTERN REGION :				
Lake Province... ..	11	19	550	580
Western Province	9	10	400	419
DAR ES SALAAM :				
Hospitals Group	58	49	386	493
Total ...	163	154	4,218	4,535

(a) Beds which are available for either Europeans or Asians have been included in the figures shown for European patients.

APPENDIX VIII
IN-PATIENTS IN GOVERNMENT HOSPITALS

Medical Region	No. admitted during year (a)			No. discharged during year			Deaths			Daily average in Hospital		
	European		Total	European		Total	Euro-pean		Total	European		Total
	M	Non-European		M	Non-European		M	Non-European				
		F	M		F	M		F	M	F	M	F	M	F
CENTRAL Central Province S. H. Province ...	— ... — 109 ... 146	5,202 ... 1,797 5,153 ... 3,983	6,999 9,391	— ... — 103 ... 146	4,940 ... 1,694 4,970 ... 3,863	6,634 9,082	— ... — 3 ... —	— ... — — ... —	335 294	— ... — 2·53 ... 2·72	169·09 ... 54·38 153·39 ... 97·48	223·47 256·12
EASTERN Eastern Province Southern Province	32 ... 20 38 ... 8	5,273 ... 1,312 2,530 ... 797	6,637 3,373	29 ... 20 36 ... 8	4,970 ... 1,231 2,436 ... 781	6,250 3,261	3 ... — 2 ... —	— ... — — ... —	334 112	0·6 ... 0·6 0·6 ... 0·2	232·9 ... 47·1 103·1 ... 28·6	281·2 132·5
NORTHERN Northern Province Tanga Province...	251 ... 252 167 ... 166	8,954 ... 3,986 7,061 ... 2,940	13,443 10,334	253 ... 251 164 ... 161	8,477 ... 3,756 6,729 ... 2,820	12,737 9,874	8 ... 3 3 ... 2	— ... — — ... —	675 509	4·34 ... 4·30 3·6 ... 4·32	423·5 ... 162·03 416·6 ... 113·89	594·17 538·41
WESTERN Lake Province ... Western Province	71 ... 62 53 ... 78	7,932 ... 4,373 5,799 ... 4,237	12,438 10,167	72 ... 66 55 ... 75	7,629 ... 4,214 5,476 ... 4,021	11,981 9,627	— ... 1 — ... 1	— ... — — ... —	450 455	1·5 ... 1·6 0·8 ... 2·8	283·1 ... 121·9 200·3 ... 118·5	408·1 322·4
DAR ES SALAAM ...	408 ... 360	4,674 ... 2,514	7,956	398 ... 359	4,516 ... 2,443	7,716	4 ... 3	— ... —	237	10·1 ... 8·60	234·3 ... 82·36	335·36
TOTALS ...	1,129 ... 1,092	52,578 ... 25,939	80,738	1,110 ... 1,086	50,143 ... 24,823	77,162	23 ... 10	2,340 ... 1,028	3,401	24·07 ... 25·14	2,216·28 ... 826·24	3,091·73

(a) These are the total number of patients admitted to Hospital during the year, and do not include patients remaining in hospital at the beginning of the year.

APPENDIX IX

OUT-PATIENTS—GOVERNMENT HOSPITALS AND DISPENSARIES TOTAL ATTENDANCES DURING 1950

Region		Males		Females		Total Persons	
		European	Non-European	European	Non-European	European	Non-European
CENTRAL REGION :							
Central Province	...	1,286	119,473	1,229	81,762	2,515	201,235
Southern Highlands Province	...	1,330	120,121	1,027	63,320	2,357	183,441
EASTERN REGION :							
Eastern Province	...	515	161,257	329	99,604	844	260,861
Southern Province	...	731	114,436	319	45,820	1,050	160,256
NORTHERN REGION :							
Northern Province	...	2,516	140,017	1,986	86,638	4,502	226,655
Tanga Province	...	1,070	146,280	901	114,425	1,971	260,705
WESTERN REGION :							
Lake Province	...	1,267	178,048	960	115,641	2,227	293,689
Western Province	...	2,019	152,038	1,135	91,330	3,154	243,368
DAR ES SALAAM HOSPITAL GROUP	...	2,921	58,914	2,336	12,870	5,257	71,784
Total		13,655	1,190,584	10,222	711,410	23,877	1,901,994

APPENDIX X

DISEASES

IN-PATIENTS AND OUT-PATIENTS GOVERNMENT HOSPITALS

	Cases In-Patients			Deaths			Out-Patients			Total in and out-patients	Group Totals		Percentage of Grand Total Cases	Percentage of Grand Total Deaths
	Males	Females	Total	Males	Females	Total	Males	Females	Total		Cases	Deaths		
GROUP I														
Infective and Parasitic Diseases														
Typhoid and Paratyphoid fevers	278	108	386	45	11	56	44	27	71	457				
Plague	—	—	—	—	—	—	—	—	—	—				
Undulant fever	5	2	7	1	1	2	1	1	2	9				
Cerebro-spinal meningitis	175	83	258	72	45	117	26	14	40	298				
Malignant Pustule and Anthrax	127	65	192	6	6	12	127	77	204	396				
Tuberculosis of the respiratory system	1,186	348	1,534	240	51	291	2,296	1,248	3,544	5,078				
Other forms of T.B. :														
(a) Bones and joints	148	51	199	11	4	15	137	156	293	492				
(b) Glands and intestines	128	64	192	5	4	9	492	408	900	1,092				
Leprosy	181	33	214	5	1	6	248	74	322	536				
Dysentery :														
(a) Amoebic	234	66	300	16	3	19	379	180	559	859				
(b) Bacillary	235	80	315	7	3	10	663	554	1,217	1,532				
(c) Undefined	438	134	572	29	8	37	5,322	2,699	8,021	8,593				
Malaria :														
(a) Benign Tertian	89	36	125	—	1	1	8,542	2,207	10,749	10,874				
(b) Quartan	20	4	24	—	1	1	91	5	96	120				
(c) Subtertian	6,144	2,864	9,008	185	94	279	37,955	24,508	62,463	71,471				
(d) Undefined	3,027	1,314	4,341	40	19	59	44,619	28,318	72,937	77,278				
(e) Blackwater Fever	29	5	34	2	4	6	3	—	3	37				
Trypanosomiasis	418	107	525	43	17	60	148	68	216	741				
Venereal Diseases :														
(a) Syphilis	1,238	488	1,726	20	8	28	16,855	13,937	30,792	32,518				
(b) Gonorrhoea	1,432	408	1,840	1	1	2	13,587	3,610	17,197	19,037				
(c) Other Venereal Diseases	149	44	193	2	—	2	1,614	506	2,120	2,313				
Relapsing Fever	1,333	615	1,948	9	10	19	1,210	719	1,929	3,877				
Yaws	457	214	671	4	3	7	27,345	24,358	51,703	52,374				
Smallpox	75	40	115	11	4	15	286	808	1,094	1,209				
Ankylostomiasis	2,138	736	2,874	145	24	169	13,102	9,952	23,054	25,928				
Schistosomiasis	680	147	827	8	2	10	8,190	3,228	11,418	12,245				
Other helminthic diseases	779	288	1,067	7	2	9	15,280	13,781	29,061	30,128				
Other infective or parasitic diseases	1,238	397	1,635	49	23	72	5,404	5,320	10,724	12,359	371,851	1,313	34.13	38.61
GROUP II														
Cancer and other tumours														
Cancer of the liver and biliary passages	51	14	65	13	7	20	24	11	35	100				
Other malignant tumours	83	69	152	23	7	30	37	19	56	208				
Non-malignant tumours	113	172	285	5	3	8	138	123	261	546				
Unspecified tumours	80	54	134	3	3	6	201	156	357	491	1,345	64	0.12	1.88
Total carried forward	22,708	9,050	31,758	1,007	370	1,377	204,366	137,072	341,438	373,196	373,196	1,377	34.25	40.49

DISEASES

IN-PATIENTS AND OUT-PATIENTS GOVERNMENT HOSPITALS

	Cases In-Patients			Deaths			Out-Patients			Total in and out-patients	Group Total		Percentage of Grand total cases	Percentage of Total deaths
	Males	Females	Total	Males	Females	Total	Males	Females	Total		Cases	Deaths		
Brought forward ...	22,708	9,950	31,758	1,007	370	1,377	204,366	137,072	341,438	373,196	373,196	1,377	34.25	40.49
GROUP III														
Nutritional, Glandular and general diseases:														
Rheumatic conditions ...	665	220	885	3	2	5	19,675	11,599	31,274	32,159				
Diabetes ...	31	13	44	5	2	7	53	37	90	134				
Diseases of the endocrine glands ...	30	37	67	1	1	2	493	375	868	935				
Scurvy ...	7	1	8	—	—	—	37	18	55	63				
Beriberi ...	20	8	28	1	—	1	7	10	17	45				
Pellagra ...	38	8	46	2	—	2	114	38	152	198				
Other deficiency diseases ...	246	131	377	37	14	51	1,388	838	2,226	2,603	36,137	68	3.32	2.00
GROUP IV														
Diseases of the blood and blood-forming organs:														
Anaemias:														
(a) Hyperchromic ...	133	81	214	29	8	37	721	785	1,506	1,720				
(b) Hypochromic ...	280	93	373	40	13	53	3,408	1,474	4,882	5,255				
Other diseases of the blood and blood-forming organs ...	247	102	349	26	7	33	1,713	1,093	2,806	3,155	10,130	123	0.93	3.62
GROUP V														
Acute and Chronic Poisoning ...	86	32	118	6	4	10	18	7	25	143	143	10	0.01	0.29
GROUP VI														
Diseases of the nervous system and sense organs:														
Mental Diseases ...	91	27	118	2	1	3	66	44	110	228				
Trachoma ...	75	37	112	—	—	—	1,186	1,078	2,264	2,376				
Other diseases of vision ...	1,071	375	1,446	3	—	3	28,959	24,348	53,307	54,753				
Diseases of the ear and mastoid ...	182	84	266	1	1	2	9,532	5,959	15,491	15,757				
Other diseases of the nervous system ...	604	217	821	39	15	54	11,644	6,299	17,943	18,764	91,878	62	8.43	1.82
GROUP VII														
Diseases of the Circulatory System:														
Heart diseases ...	163	86	249	55	19	74	354	250	604	853				
Other diseases of the circulatory system ...	211	68	279	26	5	31	1,299	923	2,222	2,501	3,354	105	0.31	3.09
Total carried forward ...	26,888	10,670	37,558	1,283	462	1,745	285,033	192,247	477,280	514,838	514,838	1,745	47.25	46.63

APPENDIX X (contd.)

DISEASES

IN-PATIENTS AND OUT-PATIENTS GOVERNMENT HOSPITALS

	Cases In-Patients			Deaths			Out-Patients			Total in and out-patients	Group Total		Percentage of Grand Total cases	Percentage of total deaths
	Males	Females	Total	Males	Females	Total	Males	Females	Total		Cases	Deaths		
Brought forward ...	26,888	10,670	37,558	1,283	462	1,745	285,033	192,247	477,280	514,838	514,838	1,745	47.25	46.63
GROUP VIII														
Diseases of the Respiratory System :														
Bronchitis ...	1,341	632	1,973	19	7	26	63,686	41,044	104,730	106,703				
Pneumonia ...	3,698	1,757	5,455	299	168	467	1,858	2,212	4,170	9,625				
Other diseases of the respiratory system ...	884	317	1,151	39	16	55	26,419	13,544	39,963	41,114	157,442	548	14.45	16.11
GROUP IX														
Disease of the Digestive System, Diarrhoea and enteritis :														
(a) Under 2 years ...	291	176	467	35	15	50	6,178	5,112	11,290	11,757				
(b) 2 years and over ...	1,094	349	1,443	100	22	122	13,714	7,289	21,003	22,446				
Hernia, intestinal obstruction ...	1,182	29	1,211	56	4	60	501	37	538	1,749				
Cirrhosis of the liver ...	173	122	295	44	11	55	198	124	322	617				
Other diseases of the digestive system ...	1,493	735	2,228	85	23	108	70,440	48,630	119,070	121,298	157,867	395	14.49	11.61
GROUP X														
Diseases of the Urinary and Genital Systems (Not venereal or connected with pregnancy or the puerperium) :														
Diseases of the kidney, ureter and bladder ...	417	155	572	48	9	57	1,858	1,098	2,956	3,528				
Diseases of the male genital organs ...	2,147	—	2,147	25	—	25	4,082	—	4,082	6,129				
Diseases of the female genital organs ...	—	1,057	1,057	—	9	9	—	4,615	4,615	5,672	15,329	91	1.41	2.68
GROUP XI														
Deliveries ...	—	5,200	5,200	—	44	44	—	180	180	5,380				
Abortions and miscarriages ...	—	789	789	—	15	15	—	393	393	1,182				
Toxaemias of pregnancy ...	—	232	232	—	8	8	—	1,023	1,023	1,255				
Other conditions of the puerperal state ...	—	1,090	1,090	—	32	32	—	1,879	1,879	2,969	10,786	99	0.99	2.91
GROUP XII														
Diseases of the Skin and Cellular Tissue :														
Ulcers ...	4,484	921	5,405	23	16	39	63,377	20,959	84,336	89,741				
Other skin conditions ...	2,578	726	3,304	33	13	46	26,842	12,925	39,767	43,071	132,812	85	12.19	2.50
Carried forward ...	46,620	24,957	71,577	2,089	874	2,963	564,286	353,311	917,597	989,074	949,074	2,963	90.78	87.12

APPENDIX X (contd.)

IN-PATIENTS AND OUT-PATIENTS GOVERNMENT HOSPITALS

	Cases In-patients			Deaths			Out-patients			Total in and out-patients	Group Total		Percentage of Grand Total cases	Percentage of Total Deaths
	Males	Females	Total	Males	Females	Total	Males	Females	Total		Cases	Deaths		
Brought forward ...	46,620	24,957	71,577	2,089	874	2,963	564,286	353,311	917,597	989,074	989,074	2,963	90·78	87·12
GROUP XIII														
Diseases of the Bones and Organs of locomotion :														
Diseases of bones, etc. (excluding T.B.) ...	1,159	310	1,469	13	7	20	13,245	6,719	19,964	21,433	21,433	20	1·97	0·59
GROUP XIV AND XV														
Congenital Malformations and diseases peculiar to the first year of life :														
Malformations, premature birth and injury at birth ...	49	95	144	21	29	50	5	11	16	160	160			
Congenital debility ...	36	39	75	11	13	24	150	134	284	359	359			
Diseases peculiar to the first year of life ...	156	187	343	11	20	31	66	53	119	462	462	105	0·09	3·09
GROUP XVI														
Senility and Old Age ...	45	36	81	13	6	19	193	182	375	456	456	19	0·04	0·56
GROUP XVII														
Violence and External Causes :														
(a) Suicide ...	4	2	6	—	1	1	3	3	6	12	12			
(b) Homicide ...	218	51	269	8	2	10	1,110	313	1,423	1,692	1,692			
(c) Accidents ...	6,089	1,232	7,321	159	56	215	45,761	10,855	56,616	63,937	63,937	226	6·03	6·64
GROUP XVIII														
Ill-defined causes ...	950	463	1,413	47	21	68	7,509	2,908	10,417	11,830	11,830	68	1·09	2·00
Total ...	55,326	27,372	82,698	2,372	1,029	3,401	632,328	374,489	1,006,817	1,089,415	1,089,415	3,401	100·00	100·00

APPENDIX XI

MATERNITY AND CHILD WELFARE SERVICES

A. GOVERNMENT MATERNITY AND CHILD WELFARE CLINICS

(Not including confinements in Government General Hospitals)

	Total Attendances	Daily Average	First attendances Mothers	First attendances Children	Total Confinements Attended	Normal Deliveries	Miscarriages and abortions	Abnormal Deliveries	Live Births	Still Births	Deaths of Mothers	Deaths among infants born alive
CENTRAL MEDICAL REGION :												
Central Province	113	0.3	67	6	250	199	42	9	193	15	1	3
Southern Highlands Province	1,429	3.9	364	87	193	132	43	18	140	18	11	5
EASTERN MEDICAL REGION :												
Eastern Province	2,229	6.3	505	102	200	185	6	9	193	7	—	—
Southern Province	—	—	—	—	—	—	—	—	—	—	—	—
NORTHERN MEDICAL REGION :												
Northern Province	217	0.59	217	—	185	181	4	—	181	4	—	4
Tanga Province	20,321	55.7	1,403	2,537	412	405	7	—	388	16	3	17
WESTERN MEDICAL REGION :												
Lake Province	16,781	45.9	1,667	4,647	551	444	42	65	480	42	15	15
Western Province	19,668	53.8	2,300	2,192	1,323	1,106	55	162	1,187	69	2	25
DAR ES SALAAM	20,876	57.2	1,081	1,195	782	645	34	42	635	19	12	46
Totals	81,634	223.69	7,604	11,566	3,896	3,297	233	305	3,397	190	44	115

B. MISSION MATERNITY SERVICES (a)

CENTRAL MEDICAL REGION :												
Central Province	10,757	29.4	2,461	639	1,472	1,174	78	220	1,346	56	4	55
Southern Highlands Province	1,799	4.9	1,127	3,314	127	102	7	18	111	11	3	11
EASTERN MEDICAL REGION :												
Eastern Province	—	—	1,508	1,600	699	330	6	5	319	13	4	6
Southern Province	14,038	37.21	1,071	1,885	880	752	56	72	821	59	6	36
NORTHERN MEDICAL REGION :												
Northern Province	—	—	475	—	609	338	24	69	386	23	—	15
Tanga Province	34,797	95.77	4,455	1,954	1,428	1,245	76	107	1,286	70	10	40
WESTERN MEDICAL REGION :												
Lake Province	55,500	152.00	4,059	1,469	3,229	2,747	208	274	2,622	148	21	48
Western Province	33,500	91.8	2,433	1,921	1,658	1,514	63	81	1,544	88	8	115
Totals	150,391	411.08	17,589	12,842	10,102	8,202	518	846	8,435	468	56	326

(a) It will be noted that in many cases figures for Missions and Native Authority Services are incomplete.

APPENDIX XI (contd.)

MATERNITY AND CHILD WELFARE SERVICES (contd.)

C. NATIVE AUTHORITY MEDICAL SERVICES (a)

[illegible]

(a) It will be noted that in many cases figures for Missions and Native Authority Services are incomplete.

APPENDIX XII

NATIVE AUTHORITY MEDICAL SERVICES

	No. of Dispensaries	Staff		Beds	New Cases 1950			Total Attendances
		African Medical Aids	Tribal Dressers		Male	Female	Total	
CENTRAL MEDICAL REGION :								
Central Province	39	1	38	74	97,994	87,893	185,887	349,306
Southern Highlands Province ...	53	48	8	—	148,222	135,190	283,412	662,294
EASTERN MEDICAL REGION :								
Eastern Province	69	7	69	—	93,967	67,993	166,488(a)	241,253
Southern Province	27	—	32	43	46,221	32,925	79,146	116,115
NORTHERN MEDICAL REGION :								
Northern Province	42	3	45	7	118,410	79,265	197,675	345,625
Tanga Province	34	7	31	9	47,510	29,021	89,971(a)	216,005(b)
WESTERN MEDICAL REGION :								
Lake Province	101	55	48	90	303,160	290,241	625,078	1,281,769
Western Province	51	11	42	61	118,020	110,969	228,989	392,881
Total ...	416	132	313	284	973,504	833,497	1,856,646	3,655,248

(a) In a number of cases distribution of male and female patients has not been recorded. (b) Figures incomplete.

MISSION MEDICAL SERVICES

	QUALIFIED STAFF				BEDS			IN-PATIENTS TREATED IN 1950						OUT-PATIENTS NEW CASES IN 1950			
	Medical Practitioners	Registered Nurses (European)	African Hospital Assts. and Dressers	African Certified Nurses	European	Asian	African	Males			Females			European	Asian	African	TOTAL
CENTRAL MEDICAL REGION :																	
Central Province ...	4	24	—	10	2	2	348	—	—	—	—	—	—	40	60	103,490	103,690
S. Highlands Province	2	10	—	8	1	2	161	1	1	927	6	2	1,096	176	183	39,253	39,612
EASTERN MEDICAL REGION :																	
Eastern Province ...	3	8	5	—	4	2	327	—	—	3,335	2	1	2,158	84	235	114,173	114,492
Southern Province	6	31	23	15	38	28	1,266	89	282	10,464	156	406	11,868	243	857	290,192	291,292
NORTHERN MEDICAL REGION :																	
Northern Province ...	2	10	—	2	3	6	327	2	3	2,841	7	7	3,799	91	186	111,438	111,715
Tanga Province	5	16	27	5	5	15	483	22	58	3,504	32	46	4,939	126	285	58,108	58,519
WESTERN MEDICAL REGION :																	
Lake Province ...	8	20	3	—	11	49	621	13	109	2,126	20	180	7,364	252	915	187,349	188,516
Western Province ...	2	12	—	3	—	4	247	3	9	1,246	—	12	1,809	38	376	291,147	291,561
Totals ...	32	131	58	43	64	108	3,780	134	491	24,443	223	654	33,033	1,050	3,197	1,195,150	1,199,397

APPENDIX XIV

LEPROSARIA—GOVERNMENT, MISSION AND NATIVE AUTHORITY

REGION	STAFF			Inmates at 1st January 1950			Admitted during year		Re-admitted	Discharged	Absconded	Births	Deaths from the Disease		Deaths from other causes	Cases Arrested		Inmates at 31st December 1950			Clinical classification at 31st Dec. 1950			No. of Non-Lepers resident at 31st Dec. 1950	
	European	Asian	African	Men	Women	Children 14 and under										Without deformity	With deformity	Men	Women	Children 14 and under	Lepromatous	Neural	Indeterminate	Adults	Children 14 and under
CENTRAL MEDICAL REGION																									
Central Province ...	2	1	15	363	319	111	86	40	78	128	23	67	38	—	31	2	14	351	318	109	215	470	63	5	53
S. H. Province ...	2	—	4	437	341	85	112	—	468	72	23	31	—	—	—	—	—	268	170	60	145	324	29	210	265
EASTERN MEDICAL REGION																									
Eastern Province...	2	1	30	316	180	64	32	5	31	45	12	13	8	—	47	97	40	299	176	82	179	279	49	17	33
Southern Province	4	—	16	752	681	226	517	82	68	266	45	47	15	—	—	31	60	932	693	167	363	1,163	266	245	302
NORTHERN MEDICAL REGION																									
Northern Province	—	—	1	15	6	2	8	2	3	4	—	4	—	—	—	7	5	13	8	1	5	11	6	—	—
Tanga Province ...	2	—	4	106	19	1	20	2	4	11	—	6	6	—	—	3	11	100	19	2	16	89	16	—	—
WESTERN MEDICAL REGION																									
Lake Province ...	4	—	14	119	71	51	194	7	—	33	7	1	12	—	—	15	3	196	100	90	88	22	256	34	60
Western Province	1	—	2	37	27	3	45	—	1	20	—	—	5	—	—	—	—	52	31	—	16	51	16	—	1
DAR ES SALAAM	1	1	26	82	51	3	59	—	50	10	—	—	—	—	5	7	—	181	46	4	14	22	—	—	—
Total ...	18	2	112	2,227	1,695	546	1,073	138	703	589	110	175	84	—	175	162	133	2,392	1,561	515	1,041	2,431	701	511	714

APPENDIX XV
HEALTH OF PRISONERS

REGION			Daily Average in Prison	Number Admitted to Hospital	Daily Average in Hospital	Daily Average on Sick List	Deaths
CENTRAL REGION :							
Central Province ...	...	...	923·60	415	11·02	31·55	24
Southern Highland Province	...	...	355·00	56	0·96	7·14	2
EASTERN REGION :							
Eastern Province...	...	...	1,887·03	930	31·61	73·65	23
Southern Province	...	...	260·10	55	1·60	9·70	1
NORTHERN REGION :							
Northern Province	...	...	764·30	478	1·50	62·40	25
Tanga Province ...	...	...	713·59	330	0·91	31·08	7
WESTERN REGION :							
Lake Province ...	...	...	1,013·80	472	20·74	34·93	9
Western Province	...	...	836·30	236	7·20	21·90	9
Totals	...		6,753·72	2,972	75·54	272 35	100

